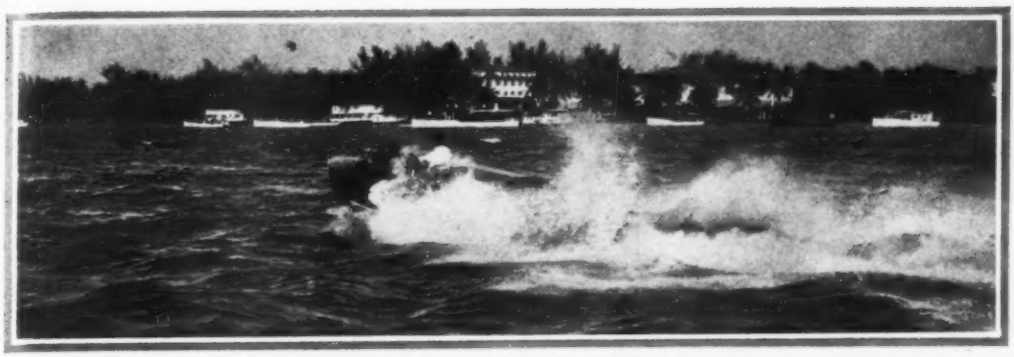


Sneeze, a Belle Isle Bear Cat owned by Edward S. Moore of New York, running on Lake Worth,

PORT WASHINGTON on Manhasset Bay, Long Island Sound, has been selected as the location for New York's Big Gold Cup Regatta, to be held August 26-30 next. Some who are neither boat owners nor sportsmen—but who make their living from the industry, yet never contribute a cent's worth of time or effort to promote the sport of motor boat racing—have objected to the Manhasset Bay course as being too far removed from Broadway and Forty-second Street. These habitual objectors to everything which the yachtsmen do or plan to do, offer no constructive thought or counter suggestion. They seem to always overlook the fact that races and regattas are run and financed entirely by the clubs and the yachtsmen themselves without any support whatsoever from the trade or industry, although it is the latter which derive the real direct and indirect benefits from racing.

International polo is played many miles from the centers of population; yacht racing for America's Cup is not held on the Hudson river; the intercollegiate rowing regattas attract thousands at Poughkeepsie and New London, and the attendance at the colleges does not suffer. Similar instances could be noted for scores of other sports which are no closer to commercialism than motor boat racing.

On the other hand, Carl Fisher *is* staging in the center of Florida's population at Miami Beach this winter on March 20 and 21, a regatta to which the public will be invited, at least those that have five dollars which will be charged for standing room. But Mr. Fisher himself owns the ten boats which will compete, and is offering $10,000 as prizes and will import to Miami Beach the crews for the boats. In this instance, we should say that Mr. Fisher was entitled to say what's what. Yet, we find him requesting and accepting suggestions from others about his own Regatta. But the difference is — Mr. Fisher is a sportsman as well as a yachtsman.

Which leads us to suggest that the handling and running of races be left to the yachtsmen themselves and to those who know and who pay for their sport.

If the manufacturers wish to plan and hold a race meet which they would finance and manage and which the curious general public could watch to their hearts' content, MoToR BoatinG will be the first to co-operate and do all in her power to make it a success. We believe also that the yachtsmen too would be found boosting, as any branch of the sport which makes better boating possible, they are always ready to support.

We believe that the Columbia Yacht Club and the New York Gold Cup Committee were right in selecting Manhasset Bay as the location for next summer's Gold Cup Regatta. MoToR BoatinG intends to assist and help in every possible way the very commendable effort which New York sportsmen are making to bring racing back to the East.

FEBRUARY
1925

MOTOR BOATING

119 West 40th St.,
New York

VOLUME XXXV
No. 2

CONTENTS

MoToR BoatinG is published monthly by the International Magazine Company, Inc., William Randolph Hearst, president; C. H. Hathaway, vice-president; Ray Long, vice-president; Joseph A. Moore, treasurer; Austin W. Clark, secretary, 119 West 40th St., New York, N. Y., U. S. A. Single copies, 25 cents. Yearly subscription in the United States and Canada, $3.00. In foreign countries, $4.00. When you receive notice that your subscription has expired it is best to renew it at once, using the blank enclosed. When changing an address, give the old address as well as the new and, allow five weeks for the first copy to reach you.

Advertising Index will be found on page 142

Photograph by M. Rosenfeld

MoToR BoatinG's attractive booth at the Twentieth Annual Motor Boat Show

GLIMPSES *of the* SHOW

Impressions of a Casual Visitor to The Twentieth Annual Motor Boat Show

THIS is to be a serious article on what I saw at the Twentieth Annual Motor Boat Show, and there is no excuse for anybody to snicker if the name of Volstead is mentioned in the first paragraph. Jokes about him are old stuff. Prohibition is the law of the land and one and all, large and small, yachtsmen are upholders of that law. We drink Java in the morning and a cup of Ceylon at four-thirty in the afternoon, and perhaps keep a bottle or two of ginger ale on ice for men friends; but that is as far as we go. We do not drink liquor.

Then what is the sense in mentioning Volstead in the first paragraph? Just this. It looks now as if posterity would assign to Volstead the same place in motor boat history that Wright occupies in aviation, and Henry Ford in the development of the automobile. Volstead put the boat and marine engine business on its feet — or, if you prefer a more sea-going metaphor, launched it on the high seas of success.

Five years ago nobody thought that the enactment of the anti-drink amendment would prove a stimulus to the building of motor boats. At that time, as now, we motor boatmen were an abstemious lot, and we naturally assumed that every patriotic American would stop drinking instanter. The months passed and it soon became evident that certain undesirable foreign elements in our population were buying liquor beyond the three-mile limit and smuggling it ashore in fishing boats. That was a distressing situation, but we put a stop to it with our usual proclivity for doing the right thing at the right time. We raised the three-mile limit to an hour's sail. With a stroke of the pen we swept from the sea all those elements of lawlessness that had been cruising off Rum Row in six-knot fishing boats.

But then, alas, it happened that the low-born elements of our population ordered the building of faster boats. They wanted — let me see — fishing boats that would cruise at fifteen knots instead of six. A few pious boat-builders of the more gullible sort contracted to build these boats, and they were launched and commissioned. To the consternation of the boat-builders many of these craft proved too slow for night-cruising, and they were confiscated by the revenue agents. In the meantime, however, they had more than paid for themselves, and the smugglers promptly ordered bigger and better night cruisers.

The new series would have to do better than twenty knots, carry six hundred cases of salt fish, and be suitable in every way for the recreational purposes of affluent, retired smugglers. Again the boat-builders failed to appreciate that they were abetting the forces of lawlessness, and the boats were built and delivered. The low-down retired smugglers promptly took up their old tricks, and the flow of liquor down the parched throats of our unassimilable foreign population continued as before. Despite the best efforts of the revenue agents (and how they do work, those revenue agents!) liquor was smuggled ashore.

And then in the year of grace 1924 the Treasury Department awoke to the seriousness of the situation and ordered the building of 175 whopping big rum chasers in addition to scores of little ones. What a boost that was to the industry! Theretofore, high-speed engines and high-speed boats had been sold to disreputable-looking aliens in the hope that they would use them for getting to church on Sundays. Thereafter, higher (*Continued on page* 126)

Photograph by M. Rosenfeld

Bear Catting *in* February

While the north freezes, motor boating moves to the blue waters of the southland, the land of the warm trade winds from the Gulf Stream, and everlasting sunshine. The illustration shows a Bear Cat on the Atlantic Ocean, with the Miami Beach Casino in the background

Commodore Gar Wood seated in the midst of a group of proud Sea Scouts, Ship No. 31

The Making *of* Pirates Bold

A Lurking Spirit of Adventure and a Love of the Sea Which Lies Dormant in Most Boys Is Developed and Encouraged by the Sea Scouts of America

By E. C. King, Jr.

THOUSANDS of boys have been stirred by the words made famous by Robert Louis Stevenson in Treasure Island and have wished they could become a pirate bold, sailing the seven seas in search of adventure and blood curdling experiences. Many have made themselves small boats to float in lakes, ponds, and even bath tubs, in their effort to satisfy the calling of the sea.

It appears that among the many sides of a youth the sea has a strong attraction for him, and while he may not follow out the desire to sail before the mast, there still remains the spirit of adventure. Today an opportunity is being given the youth of America to satisfy the desire to become a sailor or a sea captain.

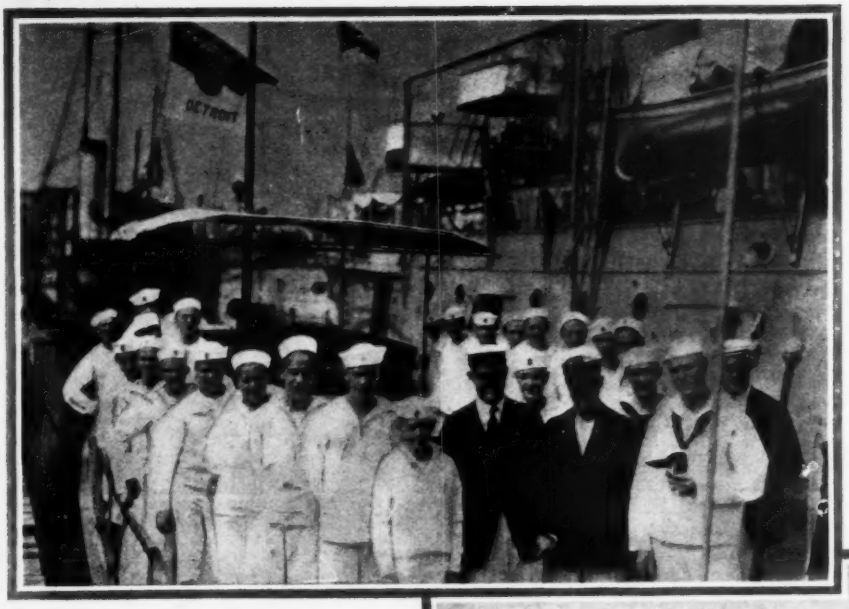
The Sea Scouts of America, a department of the Boy Scouts of America, has become a permanent organization and thousands of young and older boys are learning the mysteries of seamanship, becoming thoroughly conversant in nautical terms and methods of operation of a boat. Capable instructors, many of whom are naval reserve officers, are teaching the youth of America, while steamship executives are becoming interested in the possibility of recruiting the boys for the Merchant Marine Service. Yachtsmen and boat lovers throughout the country are becoming more interested in the movement.

A Sea Scout is in reality an older Boy Scout who has interested himself in the call of the water and all that is connected with it. The movement is several years old but only within relatively few months has it gained any headway in popularity.

A group of jolly good Scouts

Wherever Sea Scouts are located, ships may be found. While an actual boat may not always be connected with the particular group, it is the term used. Several ships have actually acquired crafts and in one instance a former government sub-chaser is being used as a training ship.

The purpose of Sea Scouting is to keep up the interest of the older Boy Scout, retaining him longer. When the average Boy Scout becomes 15 years old, he starts to lose interest and begins to look around for something new and interesting. He begins to tire of the hikes into the woods for nature study, and as a rule he has gained many of the merit badges awarded for excellency. The yearly repetition of the program becomes monotonous to him, his interest starts to wane and before long he has dropped out of the Boy Scout troop.



A detachment of Sea Scouts, Ship No. 31, about to start on a cruise

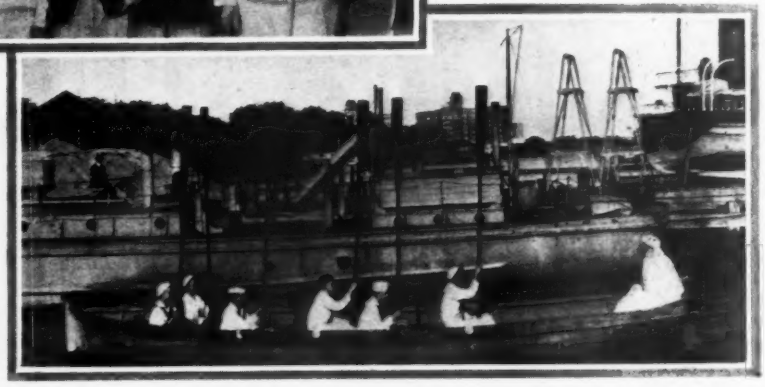
Sea Scouting has revived the boys' interest and is holding them together. The desire to learn all there is to know about seamanship and the mysteries of nautical life is quickened to the highest degree. It is something new to the boy for there is sailing, advanced swimming, Red Cross life saving tests, handling of boats under oars and after suitable training comes the cruise to some distant city or State.

Back in 1923, Boy Scout Troop 31 of Detroit, Michigan, decided that a motorboat cruise would be a delightful method of entertainment for the annual outing. Members of the troop quickly grasped the opportunity to go sailing and for many of them it was the first time they had been on the water, although they had often wished they might be able to enjoy the thrill of being on a boat.

Officials of the troop secured a 50 foot motorboat and 27 Boy Scouts signed up for the trip. The cruise took the Scouts up the St. Clair River and across Lake Huron to Georgian Bay and finally to Byng Inlet.

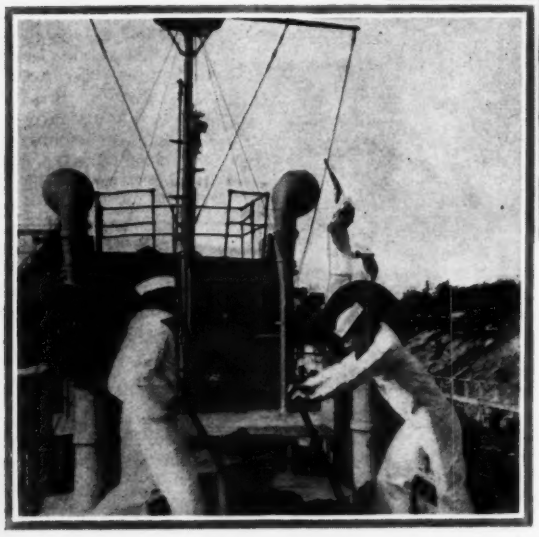
Bad weather caused some delay and among the new sailors the effects of the rolling and tossing was felt when seasickness overcame them. But on the whole, the boys showed themselves to be game and nervy.

Following the trip, decision was made to join the Sea Scouts and Boy Scout Troop 31 soon became known as Sea Scout Ship 31. The boys living along the beautiful Detroit River which afforded them much opportunity to operate became obsessed with the idea of a real boat for themselves.



A boat crew at practice in small boat handling

Lined up for inspection in fresh uniforms



Morning exercise at the pumps and practice in semaphore signalling

Gar Wood, internationally known Detroit yachtsman, soon heard of the movement and became interested. He investigated what the boys had been doing, and to show his desire to aid the popular movement, he presented the Detroit Sea Scouts with a sub-chaser which he had just previously purchased from the United States government.

A detail of nine boys, under the direction of Dean Smith, a naval reserve officer and skipper of the troop, went to New York where they took possession of the sub-chaser at City Island. Within a few days a vast (*Continued on page 122*)

CROUCH Joins HORACE E. DODGE

Famous Designer Accepts Vice-Presidency of Dodge Boat Works and Foresees a Large and Growing Market

OF UNUSUAL interest to all boating people is the announcement recently made by Horace E. Dodge, President of the Horace E. Dodge Boat Works of Detroit, of the appointment of George F. Crouch as vice-president of the company.

Manufacturing the Watercar, a 22-foot runabout of unusual beauty and staunchness, the Dodge Boat Works met signal success at the outset. Encouraged by the enthusiasm with which the boat was received, both by Dodge Brothers dealers, through whom it is marketed, and by owners, they are now proceeding on a much broader scale, enlarging production facilities and continually improving the boat.

The first step in this more ambitious program is the appointment of Mr. Crouch, whose name is familiar to almost everyone interested in motor boats. As far back as 1901 Mr. Crouch was associated with Tams, Lemoine & Crane, specializing in speed and small motor boats. From 1905 to 1914 he taught mathematics in Webb Institute, New York, and from 1914 to 1923 taught naval architecture and at the same time acted as faculty head and manager of the institute.

In 1910 Mr. Crouch designed the first concave V bottom motor boat in the world —the Peter Pan 4, which won the Hudson River championship that year. Nearly every other boat of his design has contributed in some conspicuous way to the advancement of the racing sport. Among the best known of these are Rainbow 1, 2 and 4, Baby Bootlegger and Miss Columbia which finished first, second and third respectively in the 1924 Gold Cup races.

"My principal duty, as I understand it," said Mr. Crouch, "is to see that the policy which contributed so much to the great success of Mr. Dodge's father's business, shall also be applied in the strictest sense to this business. I refer to the policy of continuous, uninterrupted improvement. We have a wonderful boat as it is, but each year brings advanced ideas and we intend to incorporate those ideas in the Watercar just as fast as we prove them to be practical and desirable.

"I told Mr. Dodge when he first asked my opinion of the Watercar that I considered it to be the ablest 22-footer for seaworthiness that I ever sat in—and I believe it. The price is low and the market is growing. With the fine facilities we have for quantity production and with a superb sales organization for an outlet, I can see enormous possibilities for the Horace E. Dodge Boat Works. Otherwise, of course, I should have remained where I was."

Beneath *the* SOUT

by VAN CAMPEN HEILNER

This remarkable story of the cruise of the 47-foot Motor Boat Nepenthe II from Atlantic City to the West Indies and the Caribbean Sea began some months ago in MoToR BoatinG. The boat, with its adventurous crew is having many strenuous experiences in the strange ports, and heavy seas which it encounters. The islands of the Bahamas and the Leeward group have been thoroughly explored, and the voyage has continued across stormy seas to the French West Indies. A most interesting recital is included in this installment of a visit to the ruins of Martinique, in the shadow of Mount Pelee, the volcano which destroyed the city and 42,000 lives, some twenty-three years ago.

The beautiful harbor of Charlotte, Amalia, St. Thomas. The cruise ship Orca dimly seen over the author's shoulder

OFF the end of Guadeloupe we passed a group of islands known as Les Saintes and then fought our way across to Dominica. Dominica is the loftiest of the Caribbee isles but we dared not stop there as we had been warned that alastrim, a form of smallpox, was rampant there, and that Martinique would quarantine us if we did. We were two hours coasting Dominica, and we passed by it with the utmost regret. We had planned to visit it, for it was the last island on which dwelt the original Caribs. Its scenic wonders too, had excited our imagination, its wonderful lakes and mountains, its great geyser or Boiling Lake, its waterfalls and curious birds and game. But the dread word, smallpox, whose ravages we had seen on some of the other islands, quite drove the idea from our minds.

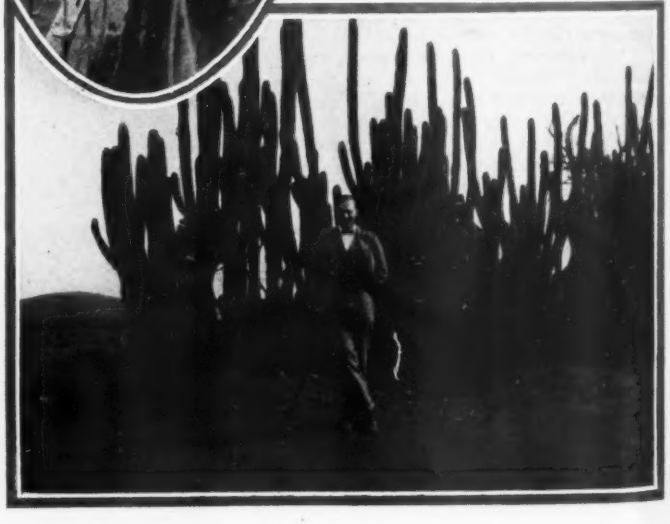
Between Dominica and Martinique we encountered some of the biggest seas of the trip, but they were longer and we rode them more easily, though we nearly rolled the decks under. After a more or less anxious two hours of looking for the French island, we finally described the cloud wreathed peak of *Mt. Pelé* looming over our bows and a short while after got behind the lee of Martinique. Martinique! The goal we had been looking forward to all these months and which on several occasions we never expected to see!

We kept close to the shore, exclaiming at the beauties that unfolded before us as we passed each cape or headland. And then, under the very shadow of Pelé himself, we passed the roadstead of ill fated *St. Piérre* and saw where the lava, like a great road, had cut a swath from the volcano to the sea. We looked forward to exploring St. Piérre.

In the afternoon we rounded into the beautiful bay of Fort-de-France. From the signal mast on the headland, flew the black balls, "A steamer from the N. W.; nationality U. S. A.!" It was a great moment.

Coming to anchor off the cus-

The skipper dons his rainproof in a tropical downpour off Monserrat



The interior of curious Curacao reminds one of New Mexico. There is hardly a tree on the island

THERN CROSS

Part VI

tom house of Fort-de-France, we blew three blasts with our whistle, for Martinique was a saluting port, our pilot book informed us, and were immediately surrounded by a fleet of small boats, whose occupants shouted questions at us in rapid fire French.

There was much red tape to be gone through before we were given *pratique,* but at last the formalities were over, and we went ashore. Fort-de-France was the most colorful place we had struck. In the center of the town was the great open square, or *savane,* where stood the statue of Josephine, Empress of the French, creole queen of the great Napoleon. I regret to say that *creole* in the West Indies, signifies negro blood, but that did not detract from the lovely empress nor the beauty of the exquisite statue. Many of the creole women of the French islands are real beauties and hard to distinguish from their white sisters. In the French islands, there is absolutely no color line drawn. The cathedral of Fort-de-France with its continuous tolling bells for every death, has a grated spire to protect it against earthquakes.

I could write a volume of our experiences in Martinique, but I shall not try. We took our boat around to the *carenage* back of the grim old walls of Fort St. Louis, and there at a private dock which the *Compagnie Generale Transatlantique* had kindly placed at our exclusive disposal, set Tom and a Swede whom we hired, to paint the boat and clean up generally, while we saw Martinique.

Jack performing a much needed job of varnishing. By continuous painting the boat came through her long trip none the worse for wear

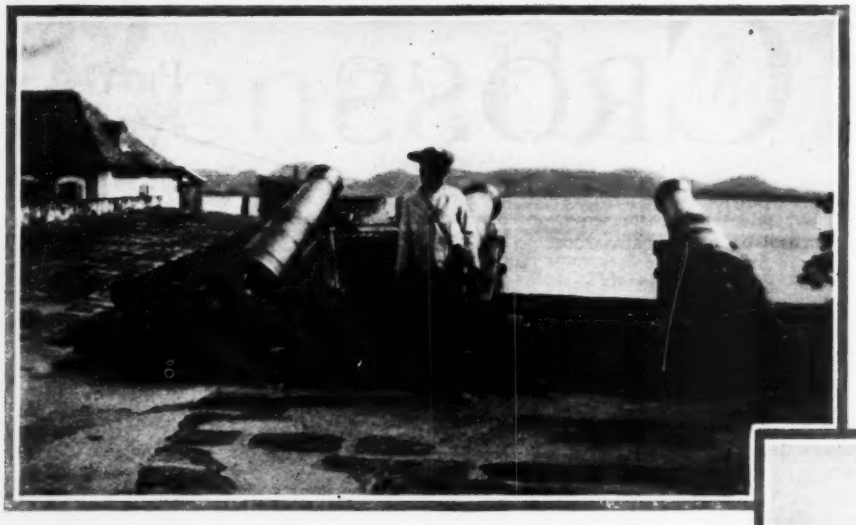
In this dungeon was said to have been imprisoned the sole survivor of St. Pierre

The doctor at one of the Dutch Islands inquires as to the health aboard ship

Fort-de-France was fascinating. The houses were painted all different shades like checker boards, the shops had a bewildering array of the latest things from Paris, the food and wine was beyond reproach. The marketplace was a never ending source of wonder and we spent many days there wandering in and out amongst the stalls, listening to the shrill chatter of French and creole and bargaining furiously with some old woman over a trifle.

There was a day when we motored over to Trois Islets across the bay, to see the birthplace of Josephine. It lies back in the hills from Trois Islets, and we had some difficulty in finding it. A small house stands on the foundations of the original, and the sugar mill of her father's plantation is nearby in ruins. It seemed a sort of pilgrimage to us, and we thought of the unhappy girl who left this earthly paradise to become the queen of a great emperor.

There were days spent



Nearly all West Indian towns have a fort overlooking the harbor. There has been more blood shed per acre in the Antilles than in any other land

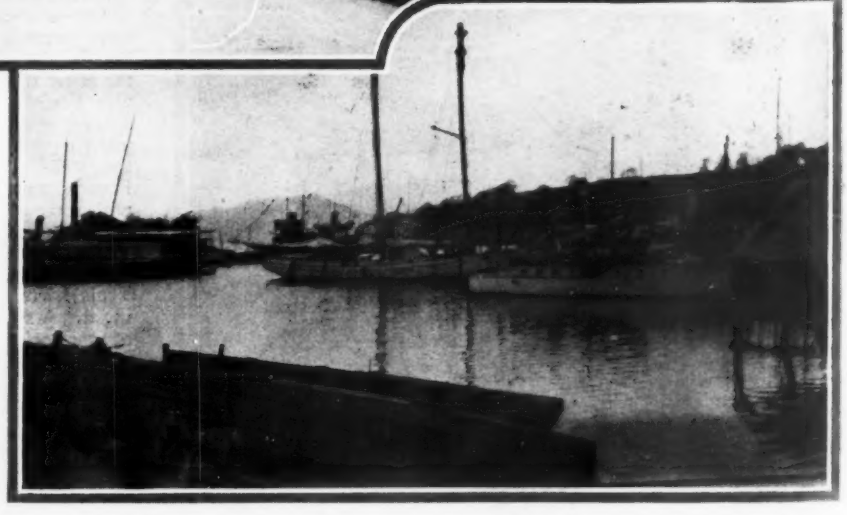
at the cockpit where we threw paper francs across the sawdust ring with the same reckless abandonment as the natives. Our host, M. Michel Cottrell, owned a fine string of fighting cocks and employed two Chinamen who did nothing but look after them, bathing them each day in bay rum. There was a day spent up in the cool mountains at the thermal baths of Absalom where for the equivalent of ten cents, we soaked our weary limbs in the warm curative waters. And then there was the day we motored to St. Piérre.

The capital of the Grenadines is divided into two parts, connected by this tunnel

The road led through the beautiful hills, past many wayside shrines and finally came out above the ruined city. The former "Paris of the West Indies" gives but a faint idea of its former glory. Where once was one of the gayest cities in the western hemisphere, with a beautiful cathedral, university, theatres, botanical gardens, and fountains playing in all the squares, now remained nothing but an ash heap. For on the morning of the 8th of May, 1902, old Pelé who had slumbered peacefully for many years, suddenly erupted with terrific force a great jet of live steam and red hot stones, and within the space of less than a minute St. Piérre and 42000 souls were wiped from the face of the earth.

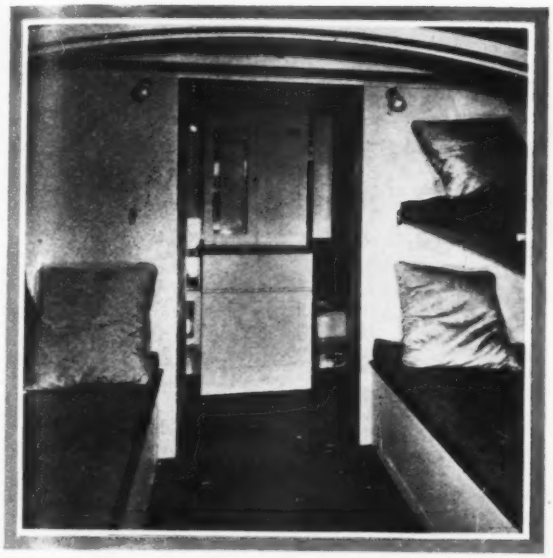
We talked with a man whose entire family had perished in the disaster. The people had plenty of warning. For a week before, the mountain had grumbled and spurted forth occasional jets of lava and smoke, and ashes fell steadily night and day. But as something of the kind had occurred about fifty years before, the older inhabitants scoffed at it. "Old Pelé was only playing." In fact a party (*Continued on page* 100)

The two Bills and Jack before Bluebeard's Castle in St. Thomas

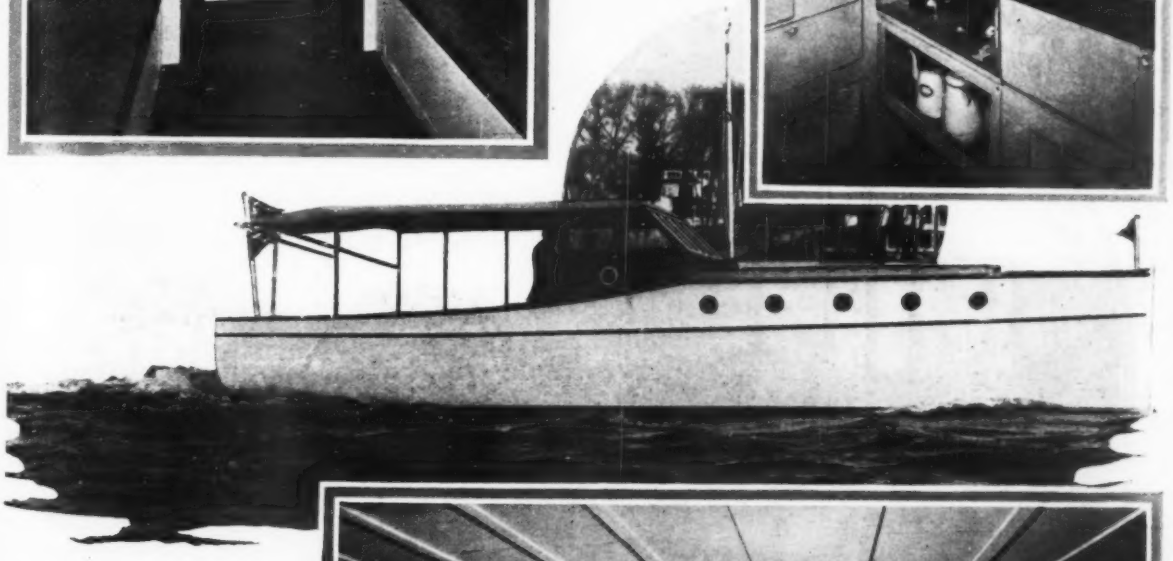


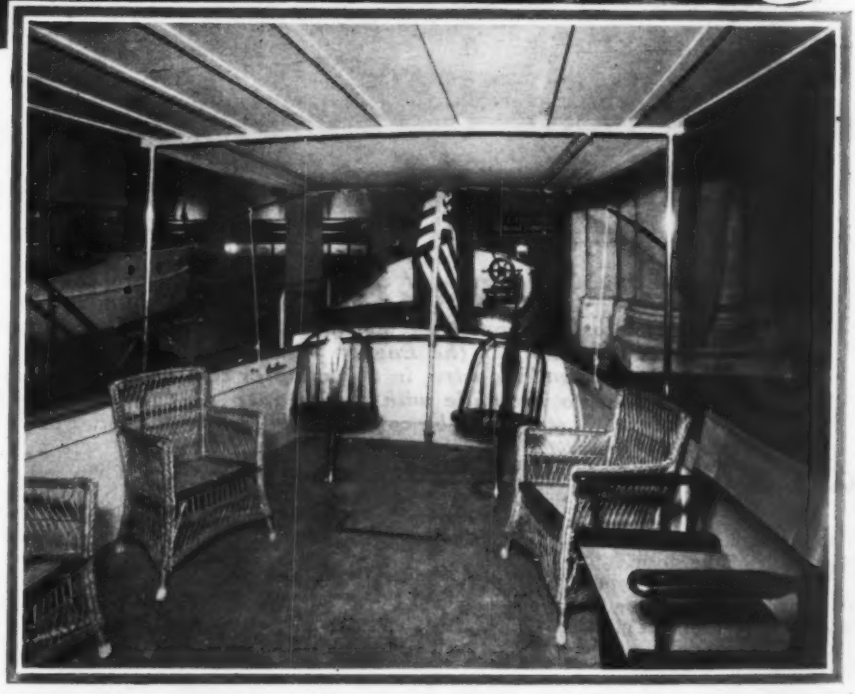
The Carenage of Fort-de-France, Nepenthe II lying alongside the C. G. T. dock

The Latest *in* Sport Cruisers



A sizable galley has been fitted at the after end of the cabin in the corner by the bulkhead. It contains a regulation sink, stove, lockers, supboards, and pantry storage space





The interior arrangement is attractive. A separate stateroom forward will accommodate two persons, and has abundant locker space. The main cabin will accommodate four on upper and lower berths which are well upholstered and roomy

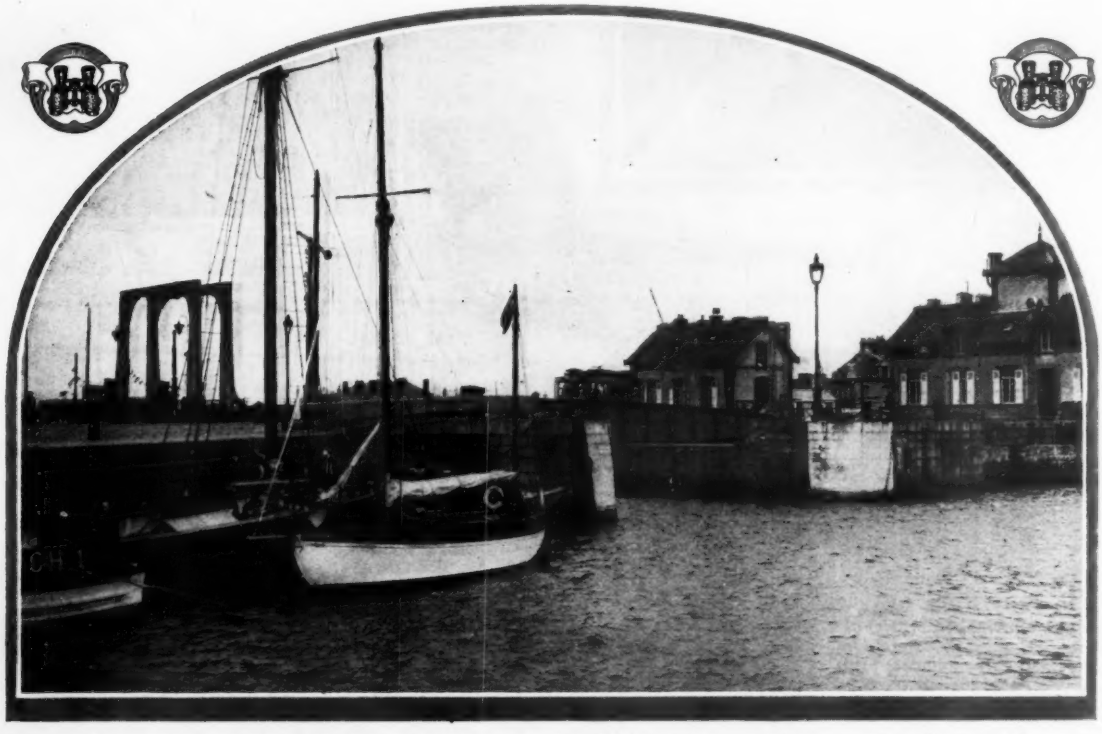
A new and carefully designed job is the 36-foot Greenport cruiser, built by the Greenport Basin and Construction Company, Greenport, Long Island, which is illustrated here. The boat has a 10-foot beam, with 3-foot draft and does 10 real knots, with a 5 by 7 inch Peerless 50 h.p. four cylinder engine

The cockpit of the Greenport 36-footer is excellently arranged with ample space with provision for chairs. Special fishing stools are provided and the after section of the top is arranged to fold over and leave sufficient room for handling the fishing tackle

A Holiday *in* FRANCE

A Quick Run From Guernsey to Cherbourg With a Fourth of July in France — Safe Harbor at Trouville Reached After a Strenuous Night's Sailing

By Alfred F. Loomis



Adastra lying in the wet basin at Cherbourg, the drawbridge and the harbor master's office beyond

In continuing the cruise of the yawl Adastra, along the French and English coasts, Alfred Loomis gives many interesting details and side lights on yachting as it is practised abroad. His voyage has taken him up the English Channel, or the English side and thence across to France. His vessel, the yawl Adastra, in this chapter completes a strenuous run from St. Peter Port to Trouville with a stop over at Cherbourg. His interesting story will be continued in March MoToR BoatinG.

"THAT, Sir," said Barkham, when we had passed through the holes and hills of Alderney Race, "was like what I told you about St. Albans and Portland Bill. It's a good job we didn't come through at the height of the storm."

It was indeed a good job. But we hadn't been clear of the tumbled region of the race for five minutes before P. L. was saying, "That *was* glorious. Did you ever see such effects of light and dark in the water, or such an aimless piling up of angry waves?"

I never had. The thing that pleased me most, however, was the way Adastra had handled herself. For more than two weeks we had been sailing her as a yawl, and had fought her weather helm until we were blue in the face. On this run we had made a cutter of her, leaving the mizzen furled, and her helm had responded to the gentlest touch. So Adastra and I were faster friends than ever, and I began to feel the kindling of affection for her.

For the dinghy, which towed astern from the end of a twenty-five-foot painter, my admiration was unbounded. On the cruise of Hippocampus we tried to tow a dinghy through

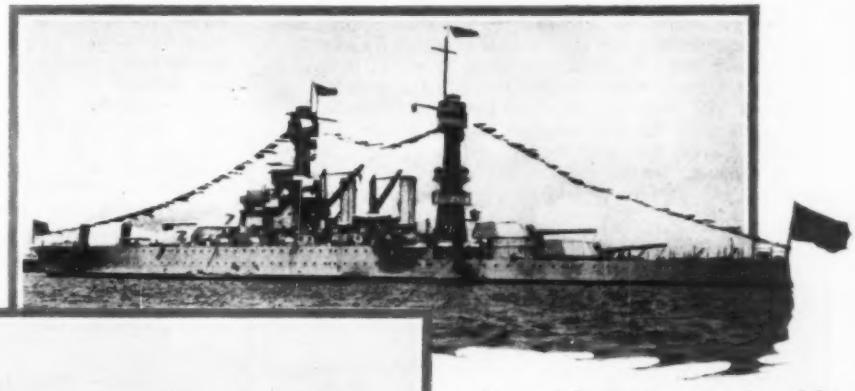
Adastra moors in Trouville basin after the stormiest run of her cruise

a storm and lost it somewhere between midnight and nowhere. The boat that replaced it was carried on deck until a certain run in the Gulf Stream, when, being overcome by tropical languor, we didn't trouble to haul it aboard. And that dinghy took advantage of our neglect by sliding down on us and staving a hole in her bow. But Adastra's dinghy, towing in a sea that fell in every direction, had kept her distance and had stayed as dry as an ocean liner.

Thinking of which, we looked astern a few minutes after we had laid a southeasterly course for Cherbourg, and saw, looming out of the northwest, a high, tremendous mass of steel. "The Majestic," said Barkham, who spends his winters fishing in the path of the trans-Atlantic vessels; and although she was ten miles off at the time his diagnosis was correct. Speeding on, she quickly overtook us, stopped to pick up a pilot, and proceeded into harbor.

Twenty minutes later we followed in and saw her anchored in the outer road, her funnels panting from exertion, her sides disgorging passengers and freight into waiting tenders. We had made a good run of it from Guernsey, and had no reason to envy the liner either her speed or her ability. Of the forty-two miles from port to port, we had done the last forty in four hours, and that, for a seven-knot boat, is good going.

Now, passing the bow of the Majestic, we sighted the magnet that had drawn us from St. Peter Port and had carried us through the Race of Alderney on the tail of a three-day southwester. U. S. S. West Virginia, a mass of flags from jack staff to taffrail, extra ensigns flying from fore and main, full dressed in celebration of the Glorious Fourth! When Americans cruising in foreign waters have



U. S. S. West Virginia, in Cherbourg roadstead, full dressed in celebration of July Fourth. This was the magnet that drew Adastra from Guernsey at four in the morning

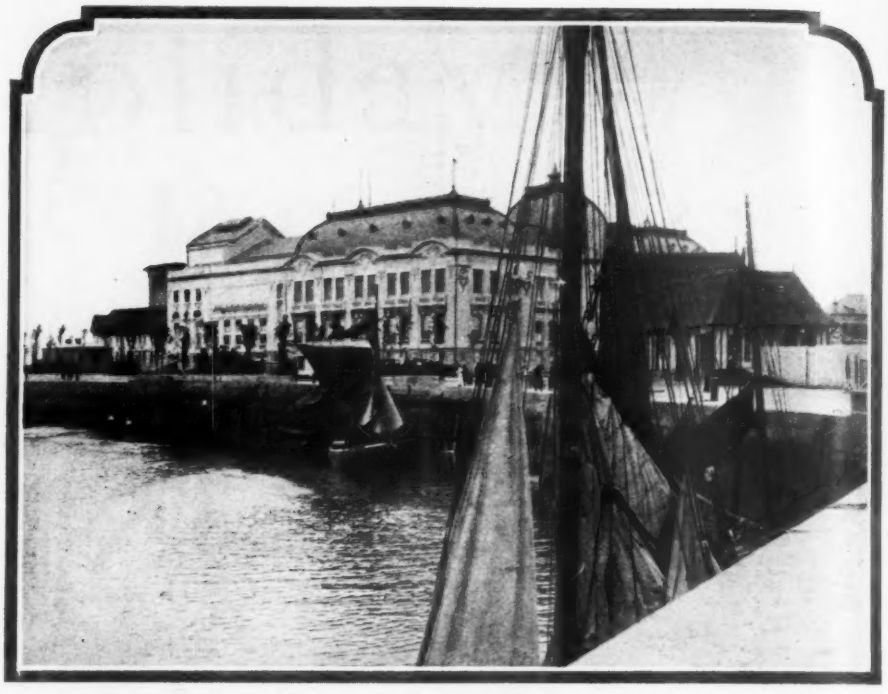
the good fortune to see such a sight as that there is but one thing for them to do. They alter course and pass the battleship close aboard; coming to her gangway they lower the yacht's ensign the width of the hoist and watch the crowd of messengers tumbling aft along the ship's quarter deck. And then as the starry silken emblem dips majestically in salute, their hearts stop beating, and—well, they're mighty glad they got up at four in the morning to partake of this sensation.

The water front at Cherbourg, with the barge of Admiral Andrews, commander of the American forces in the European station

Before coming to Cherbourg we had intended lying in the inner road, but when we saw what a distance the anchorage is from the shore, we tacked away from the West Virginia and then lowered sail to enter the harbor under power. Inside the pass we caught sight of a converted twelve-rater, named Istar, and owned by Colonel F. H. Cleaver, an English yachtsman. This 51-foot yawl had been anchored near us in St. Peter Port, and although we had admired the height of her slender mast and the sweet lines of her mahogany hull, we had not happened to meet her owner. Nevertheless, we ranged alongside and asked about the anchorage.

Istar was lying to anchor and buoy to the left of the entrance to the wet basin in the very heart of the city. She rolled a bit in the wash produced by the running boats of the West Virginia, the Pittsburgh, and the American destroyers; yet her berth looked good enough, and after a question or two, we started to let go anchor. But as the hook went over the side, Barkham heard a yell from shore and snubbed the chain short. Lucky for us that he did, as it soon developed that the bottom was a mass of mooring chains and junk.

I then got into the dinghy and rowed to the landing steps where I learned that the best place for us was the wet basin and that we had exactly five minutes to get in before the gate was closed. Ashore a shrill whistle sounded, and traffic on both sides of the draw came to a standstill. I climbed aboard Adastra, engaged the clutch, and as the entrance opened, followed the arc of the swinging bridge. A shrill squeak sounded from the region of the reverse gear, but except for an exchange of glances we paid no attention to it. The main thing was to get inside the gates or be locked out for ten hours. Then we came to rest alongside a barge and the gates clanged shut behind us.

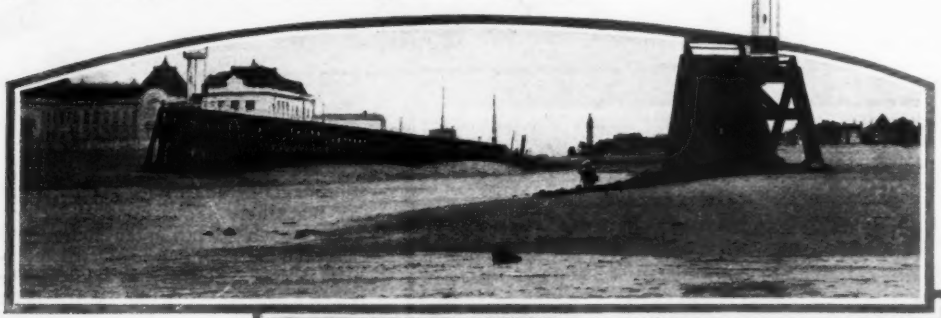


The ornate gambling casino at Trouville, and fishing boats lying on the mud along the wharves

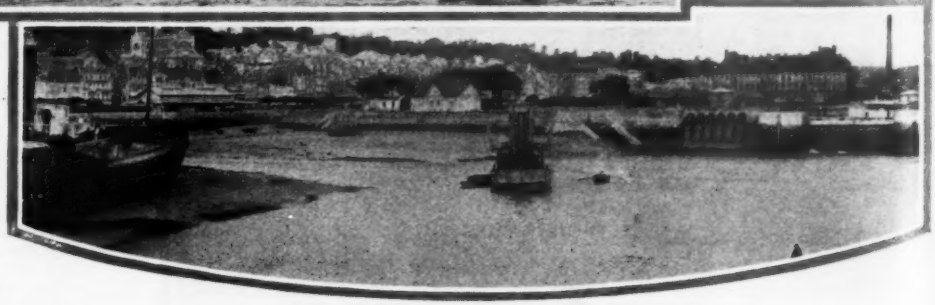
A word of explanation concerning the wet basin of Cherbourg and of other French Channel ports may be in order, as such things are unknown to yachtsmen at home, while the American tourist who comes to France never hears of them. He, the latter, disembarks from his ship in the outer road, is ferried ashore by tender, and takes the first or fastest train for Paris. Concerning the life of the harbor he knows little and cares less.

The basin is necessary because of the high tides and the lack of natural harbor depth. When the tide is high the average tidal port in the Channel has twenty or more feet of water alongside its wharves. But when it is low vessels must lie on the mud. To avoid this an enclosure is formed which resembles a canal lock, except that it is several times as large. Gates are installed as in a lock chamber.

(*Cont. on page* 106)



What the mariner sees when he approaches Trouvill at low water—dry sand off the jetties and children fishing for eels in the entrance



At low water the dredge knocks off work and lies on the bottom. The city of Trouville, opposite La Havre

Bow and side view of the newest coast guard patrol craft built by the Sea Sled Company

SEA SLEDS *for the* Coast Guard

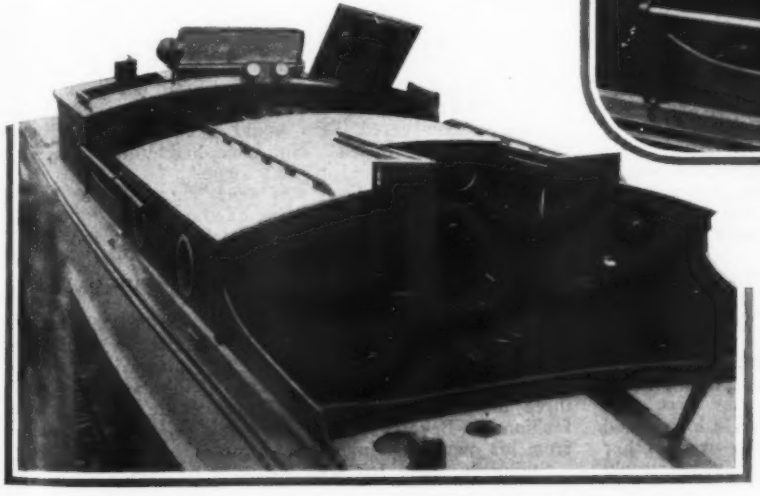
New Type High Speed Patrol Vessels Developed and Constructed Particularly for Rough Waters

AMONG the recent patrol vessels built for the United States Coast Guard are a number of 35-foot cabin Sea Sleds, designed and built by the Sea Sled Company, particularly for this class of service. These boats are capable of being used in the open sea, and are the fastest of the Coast Guard's patrol fleet.

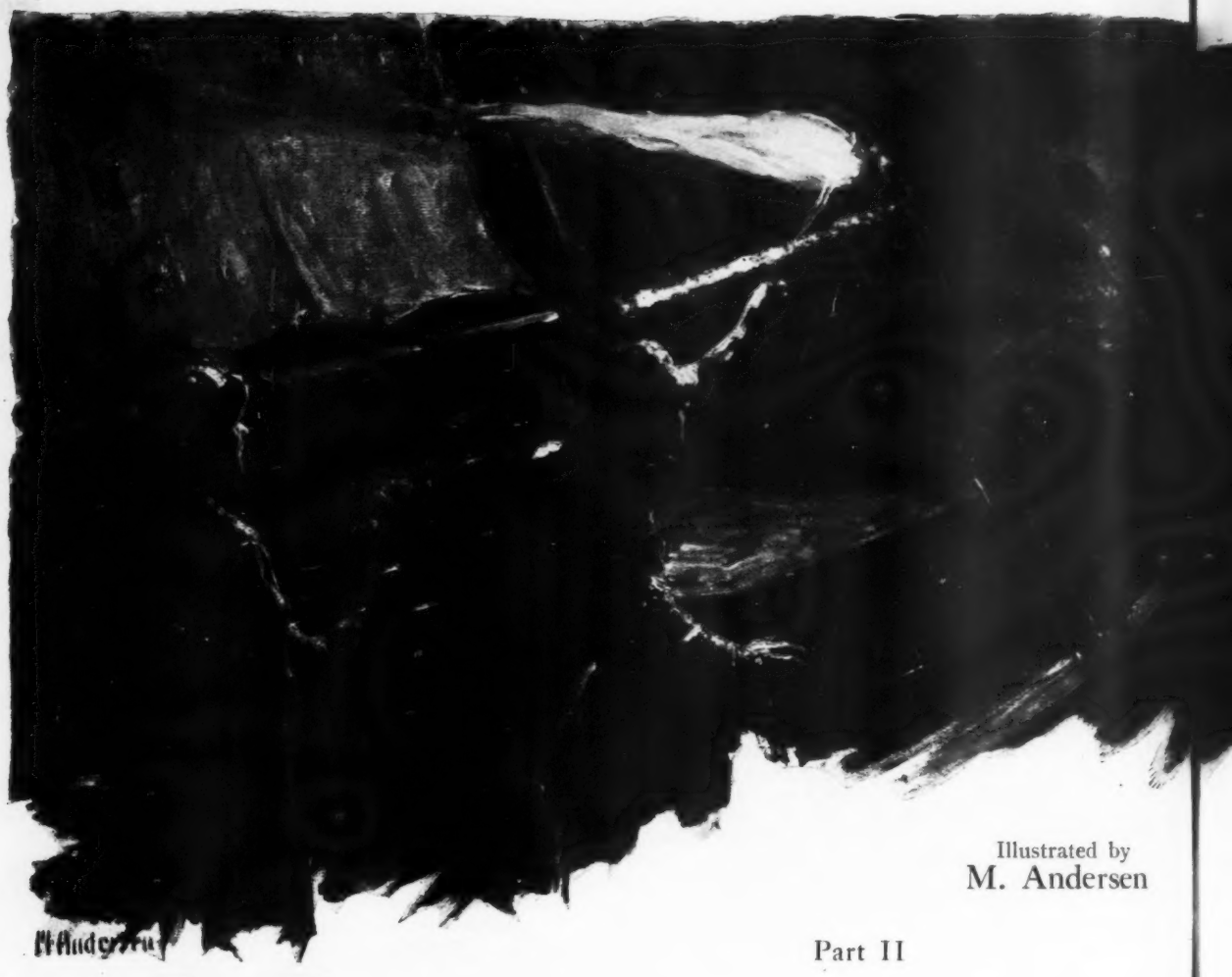
These boats are 35 feet molded length, and 38 feet 3 inches overall projections. Their molded beam is 8 feet 6 inches. They are equipped with a pair of 275 h.p. 6 cylinder Sterling Dolphin engines of 5¾ inches bore and 6¾ inches stroke. The hulls are double planked mahogany construction over substantial oak frames. In severe service tests, the hulls have shown no weakness and have been able to maintain high speed in open waters.

The interior of the boats has been arranged for the service intended, and the forward part contains a cabin with 6-foot 3-in. head room, and two wide sleeping berths with clothes lockers and stowage space. In the extreme bow, under the forward deck, are lockers for the anchors, cables and similar general equipment. Astern of the cabin, and about midships, is a roomy control cockpit with steering wheel, throttle, spark, and reverse gear controls, starter buttons and instrument board. The boats are built for one man control and all the necessary fittings are at hand. The engine compartment is also arranged with full headroom, while the extreme after cockpit is roomy and has doors and a sliding hatch leading below.

The midship control cockpit of the coast guard Sea Sled, showing the convenient location of spark and throttle controls with the necessary instruments



After cockpit with a glimpse of the Sterling Dolphin 275 h.p. six cylinder engine. Two of these are installed and makes these boats among the fastest of the coast guard fleet



Illustrated by
M. Andersen

Part II

Necessities

by Carl Clausen

THEY were clearing the end of the mile long breakwater, and the yawl was bucking the short seas, when the topsail schooner Westwind, Halliday's ninety-foot palatial yacht, came out of the roadstead and cut across Tern's bow, five hundred yards ahead.

Westwind, a slim, finkeel boat, narrow of beam, laid a full point closer to the wind than the little broad-beamed forty-foot Tern. She was capable of twenty knots with a half gale on the quarter. The best Vance had been able to get out of Tern was fourteen, and that only once, in a westerly gale.

Marshall, looking after the schooner crashing through the short seas, ahead, said:

"If we had an outfit like that, sailing would be worth while."

Vance patted the wheel spokes of his yawl.

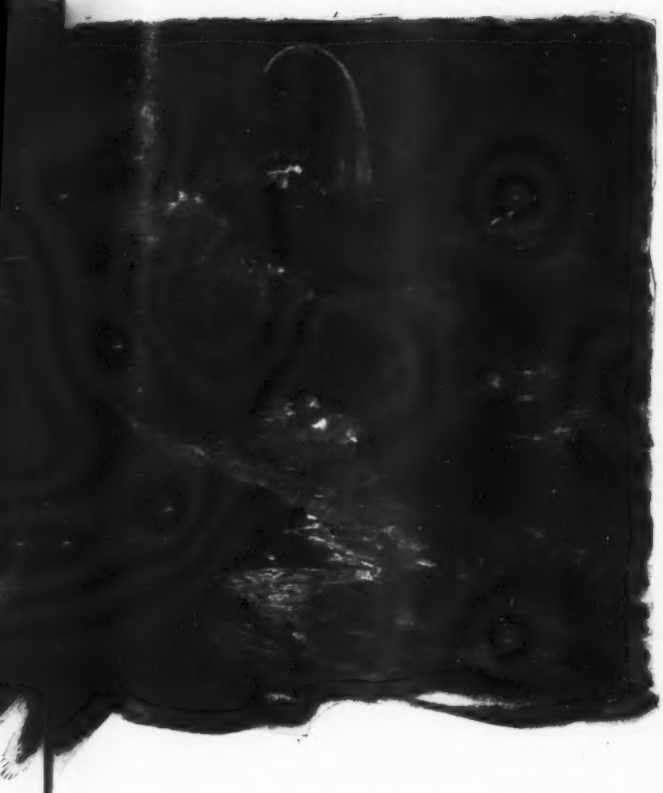
"We've got a boat under our feet that'd live where Westwind would be smashed to kindling."

He ran loving eyes over the little Tern. He had picked her out three years ago on Balboa Bay among twenty other boats. She had been built on Humboldt Bay by an old Gloucester man who knew his business. She was no racing boat, still for her type she was unusually fast. The Gloucester man had spiked an eight-inch keel to her bottom. In dirty weather, when other boats were running with their mainsails close-reefed, Tern would be clawing into it with only her topsail furled. Not once had Vance found it necessary to take a reef in her mainsail.

Strictly speaking, Tern was ketch rigged. Her jigger mast was stepped well forward of the cockpit, not abaft of it, as in true yawls. This made her all the more seaworthy and easy to handle. Hove to in a gale under jigger and jib, Vance could lash the wheel and turn in. She'd ride to the wind without a flutter.

There was no envy in Vance's heart as he looked after the splendid yacht of his employer. He knew what the upkeep of such a vessel meant, even to a man with a thirty-five thousand dollar a year salary. Halliday maintained three motor cars, and a fifty acre estate in the ultra-fashionable Beverly Hills. The banker's position differed from his own, only in degree.

Staunchly, Tern followed the wake of Westwind in the



He struck a match, set fire to his improvised torch, and returned on deck, waving it above his head. The signal was seen and answered by the strange craft, now less than a mile ahead

Discipline — One of the Great Lessons of Life — How a Father Took Stern Measures to Impress a Frightened Son with the Importance of Self Control

stiffening breeze. A thirty foot sloop rounding the jetty, astern of them, put about after one short tack and cut for the shelter of the breakwater. Two miles to starboard, a four-masted lumber schooner came scudding for port with her long booms dipping into the gray seas.

An hour or so later, with the wind freshening and the lumber schooner rounding the jetty for her anchorage under staysails, Vance saw Westwind, three miles ahead, take in her topsails and flying jib. He glanced aloft at his own bellied topsail. Tern, now clear of the short seas, thrashed into the long channel swells with green water boiling over her lee railing.

At noon, Tern overhauled Westwind. The schooner had swung off to reef her lower canvas. Not until then did Vance take in his own topsail.

For a while the two boats ran neck and neck. Then, her reefed sails stretched flat by the halyards once more, Westwind luffed up and shot ahead again. The two boats were speeding alone across the gray autumn sea. To starboard rose the misty headlands of Catalina Island. Ahead, the blurred outline of San Nicholas.

Five miles off San Nicholas they met the lobster fleet flying for port. The skipper of one of the boats passing close to Tern megaphoned a warning to Vance as the vessel shot by under full speed.

"North-easter coming!" the man shouted, "better make port while you can."

Vance shook his head and waved his hand back at him. Marshall clambered into the cockpit. His face showed anxiety.

"Better take his advice, Dad," he said. "It's Henderson of the Seamew. He's one of the oldest fishermen on the coast."

Vance smiled, grimly.

"Your father is one of the oldest *sailors* on the coast," he replied, with a certain slow emphasis on the word sailors. He glanced ahead at Westwind. The schooner had paid off a couple of points and was heading for shelter to the South of the Island.

"Anything Westwind can ride out, is play for us," he added.

He knew that this was sheer bragging. Marshall did not reply, but on the boy's face fear was written. Vance glanced at his son with a curious, half veiled expression. There was still time to turn back. But, Vance had no intention of doing so. Opportunity was knocking loudly on his door. His eyes when they swept the gray waters ahead, had in them something of the look of a seer. Somehow he felt that out there in the teeth of the gale, he'd find his lost self.

When Tern passed the kelp beds of San Nicholas, the sun had disappeared. Gray clouds were sweeping across the subdued face of the sky. Then, suddenly, the breeze dropped and the wind came with a rush from the north-east. Vance did not ease Tern to the blast. He merely paid out the main sheet a little and held her on her course. Over she went, her boom dipping into the boiling waters. Marshall was flung clear across the cockpit. He picked himself up, half-stunned and badly frightened, as Tern righted herself, and gathering way, went racing west upon her course.

Vance glanced at his son's white face.

"I just wanted to know how much she could stand up to," he explained, calmly. Spray lashed his face. Through the smother ahead, he saw Westwind keel over to the blast, as her crew took in her foresail.

Tern, plunging across the gray water with the gale howling on her beam, her mainsail still unreefed, overhauled Westwind. The weather railing of the yacht was crowded with faces staring at the little yawl as she ploughed past them to windward.

Said Halliday to Captain McTeal, his skipper:

"There goes a lad that's not afraid to crack on sails."

McTeal took a long look at the yawl through his binoculars.

"It's Vance, your assistant cashier, Mr. Halliday," the skipper replied, handing the glasses to his employer. "I *thought* I recognized Tern when we were reefing down, an hour or two back."

Halliday raised the binoculars to his eyes.

"And so it is—by the Eternal!" he ejaculated, "the son-of-a-gun."

He handed the glasses back to the skipper.

"I wonder where he thinks he's going—headed for the open sea in a gale like this?" McTeal said.

"I don't know," Halliday replied. He squinted ruefully aloft at his own small canvas, "but he's on his way, I'll tell the world. I hope he gets back by Monday morning to open the vaults," he added, with a grin.

"If he stays on the course he's laying on now he'll be prying open the door of Davy Jones' locker by Monday," McTeal replied, with conviction.

"He?" said Halliday, "not on your life, he won't. That man knows how to handle a boat."

"He'll need to know if he keeps on heading west. When he gets clear of San Nicholas he won't be bucking channel seas any longer. He'll have the whole sweep of the Pacific to reckon with, and they roll 'em up big out there in a North-easter."

"H'm," said Halliday. He looked after the yawl with a gleam of admiration in his eyes—also a gleam of something else. Whirling on the skipper, he barked out:

"Send a couple of men forrard and shake out that foresail again, Mr. McTeal."

The skipper's face turned a lighter hue.

"You're not going to put out to sea, Sir, with the glass

going down the way it has been doing for the last hour?" he asked, anxiously.

"Who says I'm not?" Halliday roared. "This is my boat. Get the gaskets off that foresail, and make it snappy!" Under his breath, he added, "I'll show that assistant cashier of mine that he's not the only one who can crack on sails."

Vance clearing the Southern promontory of San Nicholas, saw Westwind set her foresail again and come booming in his wake. He smiled, grimly, as the little yawl breasted the long northerly swells, lashed by the gale.

Swiftly all horizons were foreshortened. Clouds racing out of the north crowded down upon the agitated face of the waters. Darkness came with a rush. A lone seagull hung balanced on the gale for an instant, then was swept away and swallowed up to leeward. The island was blotted from their sight, as if a black curtain had been dropped over it. To windward of them, Westwind came plunging. Her red port side light leaped through the slithering seas as she passed them to windward. Then, the light narrowed to a thin, crimson beam, and was gone, as she drew ahead.

Vance's face grew grim as he listened to the drumming of the gale in the rigging above his head. He was a man possessed of an idea, driven by the force of his own desperation. Marshall, mute with terror, was crouched beside him in the cockpit.

Once, a surge of pity for the lad, sweeping over him, Vance came near weakening and putting the boat about for the shelter of the island. But when he thought of the scene at the dinner table of the night before, his face grew hard. He felt something like the gambler does who stakes his last dollar on the turn of a card.

There came to him, suddenly, the picture of Marshall as a small boy in a middy suit, running across the street to meet him as he stepped off his street car one evening, years ago. That particular scene was flashed upon his brain with a startling vividness. He had crossed the car track to meet the boy. An express wagon had rounded the corner at the same moment. With a reach of his arm he had knocked the lad aside—had literally swept him from beneath the horses' hoofs. The blow had nearly knocked the lad unconscious. He had been too young to understand. The incident had been followed as usual by a scene with Emma, his wife. She had not accused him, directly, of brutality, but the occurrence was brought up against him on later occasions as testimony of his lack of self control.

Vance wondered if Marshall was old enough to understand, now.

A sudden blast of wind rushed out of the blackness to windward and flung the yawl almost on her beam ends. At the same moment a giant comber smashed against her bow and engulfed the two men in a smother of phosphorescent spray. With a noise like the report of a pistol shot, the mainsail blew out, the tattered shreds of canvas flailing astern in a brief shower. Slowly, the yawl righted herself, shook the water from her slanting deck, and went on under jib and jigger, with the squall screaming through the empty boltropes where the mainsail had been.

Reaching out his hand in the darkness, Vance touched Marshall on the shoulder.

"Go below and make us a pot of hot coffee," he shouted in the boy's ear, "you'll find matches to light the cuddy lamp in the locker over my bunk. Put on the old suit of oilskins. We're going to have a wet night. The suit's hanging on the bulkhead abaft the engine."

The boy stammered an incoherent reply, that was carried away and lost in the tumult of the gale before it reached Vance's ears. Repeating the order, Vance caught his son by the arm and pushed him halfway through the hatch. Marshall wrenched himself free and turned upon his father in a burst of fear, and defiance:

"I won't! I won't, I tell you!" He fairly screamed the words. "I won't go down there and drown like a rat while you wreck the boat!"

Vance ran the yawl up into the wind. With the loose end of the main sheet, he lashed the wheel securely. Then he shoved his son through the hatch and followed himself, closing the cover behind him, and lighting the cuddy lamp.

"You and I are going to come to an understanding, right now, Son," he said. His voice was deadly calm, and he was conscious suddenly of the power this calmness gave him. "We are on the high seas and I am the master of this craft. You are my son, but first, you are my subordinate. You may consider yourself my passenger, if you wish, but this does not alter your status. In times of danger, passengers are directly responsible to the master of the vessel. We are in danger now because of your refusal to obey orders, and by such action, taking me away from my duties on deck."

He paused, and looked his son square in the eyes.

"You're almost nineteen years old. I am forty-eight. You should be a better man that I am, but you're not. Do you know why? I'll tell you! You're young—afraid of death." His voice dropped. "I'm almost afraid of life. In a fight with me you wouldn't have a ghost of a chance. You can't lick a man who has no fear of death, Son. Are you going to obey orders or are you not?"

Marshall had backed away to the far end of the cabin. His face showed livid in the dim light of the swinging cuddy lamp.

"I—I think you're crazy!" he blustered, but Vance detected beneath the bluster the note of a whine.

"I was never saner in my life," he said, quietly. "Never half as sane in the last twenty years," he laughed, hollowly. "I brought you out here tonight to give you a taste of what you will be up against sooner or later in your life—discipline. You mentioned something about necessities at the table, last night. Discipline is one of them. I'm going to give you that now."

He pulled out his watch and pointed into the small cook's galley.

"You have half an hour to do as I told you. I am giving you a little time to adjust yourself to the role of subordinate, you see," he explained, grimly. He pointed to the bulkhead where some garments swung on a nail. "When the coffee is done, put on that suit of oilskins and come on deck and relieve me at the wheel."

Replacing his watch in his pocket he turned on his heel. At the hatch he paused.

"We've got a fine boat under our feet. I don't propose to lose it through your insubordination. It's blowing hard now, but by midnight it'll be blowing harder. It'll take all the sand I have and you need, to ride out this storm."

Without a backward look he left the cabin and returned to his post at the wheel.

Screaming tumult met him. The yawl was headed into the gale close-jammed, hammered by vicious seas that crumbled over her bows and came racing down her deck, filling the cockpit. Self-bailing though the pit was, it was half full of water all the time. Walls of stinging spray went slithering over the boat, thudding against the two sails, the jib and jigger, both of which were straining, tight as drumhides, at their boltropes.

Vance, peering to windward, saw nothing but the gleam of white crested seas breaking the blackness. He knew that the storm had not reached its worst by far, but he felt very secure. Beneath his feet was a boat built of two-inch pine planks bolted to ship knees hewn from the roots of the same tree. With plenty (*Continued on page* 116)

Do Not Skip This

This story, Necessities, by Carl Clausen, which is completed in this issue, is one of the most remarkable sea stories which it has been our good fortune to publish. You will be carried along in a thrilling battle with the elements, and through the excitement of a shipwreck, and the subsequent rescue of the crew, and the salvage of the vessel. Skillful boat handling, under difficult conditions is responsible for the safe return of the people on the boats. Through it all runs the lesson of discipline and training, which the father, Edward Vance, wishes to impress on the character of his son.—Editor.

ELCO'S Surprise Cruiser

The Newest Attempt to Provide an Inexpensive Motor Boat Which Will Be Within the Means of the Masses

Photographs by M. Rosenfeld

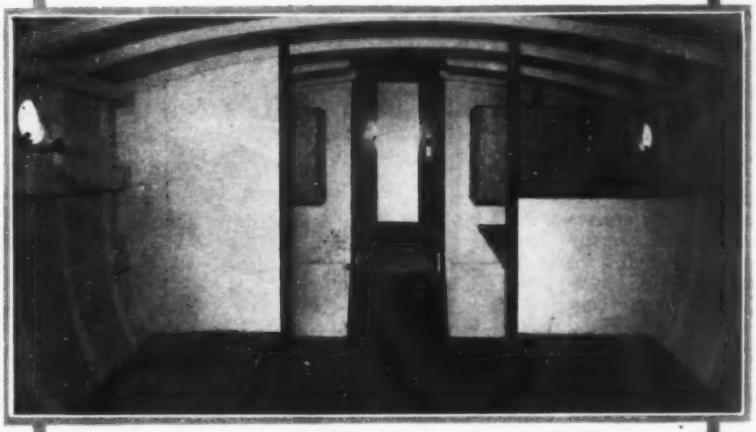
The newest Elco 26-footer is powered with a model Z engine, which drives her in good shape

THE startling new cruiser which the Elco Works exhibited at the recent Motor Boat Show for the first time, has created quite a sensation in the motor boat world. This little boat, only 26 feet long, has been provided with a Gray model Z engine of 16 h.p., and which drives the boat at about 9 m.p.h. The low fuel consumption of this engine, and the simple construction and arrangement of the boat, make it one of the least expensive recreation devices available today. The boat is seaworthy and built for comfort. It can sleep four persons readily, and has a galley, sink, fresh water tanks, and a separate toilet. The cockpit is large and roomy ,and over it is an awning which is ample protection against the weather.

Since many persons who are likely to be interested in a boat of this type, may not be able to handle the outlay of as much cash as is required at one time, arrangements have been perfected to sell these boats on a deferred payment basis, which will permit of their being paid for from current earnings instead of past savings.

The motor installed in this little boat is a model Z Gray engine which is located under the cockpit floor, and still quite accessible. The steering gear and other fittings are of the usual type, and readily obtainable anywhere whenever replacements are necessary. The cabin space is about 9 feet long, with a transom seat on each side, wide enough for a berth. Pipe berths, which will permit two additional persons to sleep on board, can be easily installed. Galvanized iron tanks for both water and gasoline are built in on the inside of the bulkhead, where they are under observation at all times.

Preliminary to selecting the Gray engine for this boat, the Elco Company conducted extensive tests in its testing laboratory, and the little Gray engine came through with flying colors.



The interior of the cabin of the 26-foot Elco cruiser, showing the entrance companion

Looking the other way in the cabin and showing the large amount of space available in the little craft

CRUISING *to* FLORIDA *with a* Hot Water Bag

by HUCK

WELL, Chap, you knows how awful I suffers from the cold. Well I is about to tell you the most pitiful tale of hardships on the high seas what you has ever heard. After I spends a month in Southern California where the minium temperature it was 98, I returns to Boston, my native heath. I doesn't know what heath means but I remembers that it was in one of them poems that I has to learn by heart when I was in primary school — you knows, the kind that you sort of sings because you doesn't have any idea what any of it means.

Anyways I returns to Boston long enough to see that Kex she is launched proper-like and to give my serious-minded friends the raspberry and to start for Florida. I tries in vain to get some cuckoo to make the whole trip with me. As a alternative to that I figures on making the Harvard-Yale game at New Haven en route and I finally gets under way with three other damnfools aboard who was looking for a free ride to that point. One of them, he was Professor Homo, the same feller what has ruined all my cruises for these many years. Like all them pedigogs he is usually thinking about something else and he smokes them El Ropo cigars and drops the ashes all over the decks and once he steers Kex across the Bay of Fundy and reads a book at the same time. In other words Chap, he aint got much sense at all but he means well so I lets him come along. The next feller was Homo's law partner, Feloneyus. At one time he was American Champion Single SKULL. His skull it is now getting bald and I doesn't know whether he can row a tender or not, but he is still single and you has to hand it to him for that. The third feller, his name recalls nothing but headaches and hangovers — Gordon — but I believes he is the only genuine Gordon what it is still obtainable. I understands that all the rest, it is now adulterated with Cuban alcahol. This Gordon person, he is one of them hardy Tyrolean Mountaineer types that starts off on a cruise in the winter time with a pair of flannel pants on.

He makes a swell case out for himself that he wasn't sea sick that it was just something he et

Well Chap we starts down the coast. The sea it was very calm and Feloneyus he spends three hours telling us how glad he is that he comes. Then that night when we begins to take some of them green rollers over the bow down in Buzzards Bay, his face it turns the same color of the stockings what the sweet things is wearing nowadays and he excuses himself polite-like and goes below and we never does see him again until the next day. Then he makes a swell case out for himself that he wasn't sea sick that it was just something he et, but nobody pays no attention to these lawyers anyways because they is always getting paid to misrepresent the facts and they never tells the truth about nothing. Then we gets out in another seaway and he goes down for the count again.

I sends the Cape Cod Canal Company a check before we starts for half the value of the boat, on purpose so we doesn't have to stop in the Canal that night but when we gets there, they is ten men that runs down on the dock in the dark and begins yelling at us. My friends they resents this and so they runs out on deck and they starts yelling back so nobody can hear nothing. We proceeds. When we gets to the first high bridge, the drawtender he runs out and swings a red lantern as if he has a message for us direct from Moscow. He starts yelling and my friends they starts yelling. We proceeds. When we gets to the Bournedale ferry another bunch of leather lungs they runs down on the wharf and does their stuff and my friends they is so frenzied by this time that they tells them that we has paid the toll, where they can go and to bite their foot and a lot of other things Chap, that if I tells you right out, your paper it gets banished from the males. We proceeds and we keeps proceeding and nothing else happens and while we is discussing what it was all about, Homo he steers us successful into a black spar buoy and I yells at him to turn one way and he turns the other and it grazes the deckhouse and conks the boat davits and since then he and I, we has conducted a impolite correspondents trying to make out who was right which it will never be settled but you takes it from me that he was

Huck and his all star crew about to start to Florida on board Kex in Boston Harbor

wrong as usual. We keeps on and gets through the canal. We puts into Newport at two A. M. and the next morning while Feloneyus was trying to decide whether he was going to live or not and Homo and I was trying to get up enough courage to get up and freeze to death, this here Gordon person he starts walking around with nothing on and exposing himself indecent, just as if it was summer. Then he goes out on the dock in nothing but a running suit and runs and then he comes back and he tries to jump like a Shamois Skin onto the deck and the deck it was covered with a fillum of ice and he slips and he lands just where you knows he lands without my telling you and I thinks that somebody they has fell overboard and I rushes on deck in my crape mashine nightie with the rosebuds on the shoulder and I gets my feets so cold that I never does expect to get them thawed out again. He is one of them fellers that struts around the next morning, when everybody else they is dying or dead and says as how he feels elegant and sooner or later them guys always meets a violent death.

I puts on three pairs of underwear; a sweater, coat, overcoat, waterproof suit, and my fur coat and I goes to the football game

Well Chap we puts into New Haven in the nighttime in a hurricane that it was raining so you cannot see nothing and we picks out the wrong pair of lights and we nearly crashes the breakwater. Then we ties up at a wharf what it was about a half mile long and was built about the time that Eric the Red he discovers the Elis and it was full of holes like a Swiss Cheese. As everybody was cold and as I is a great respecter of the law and doesn't allow nobody to violate the Volstead act on my boat, two of the party they insists on going up town and getting poisened but after about a half an hour they comes back badly bruised and with their pants torn and they says they walks through a hundred and ninety-one holes in the dock and they doesn't believe that it connects with the United States anyway and then we all has a fight and turns in.

The next day the rainfall it breaks all records since the spring of 1871. I puts on three pairs of underwear, a sweater, coat, overcoat, navy waterproof suit and my fur coat and I goes to the football game. The men, they was all wrapped up like I was but the women they proceeds regardless and I never seen so many bare knees this side of the Miami Beach swimming pool and after I sees them dames walk through the puddles I understands at last why they calls womens footwear PUMPS. I hears since, that they was a heavy epydemic of newmonia the next week. When I gets seated in the Bowl a guy comes along that has took something for his cold before he arrives and claims I has his seat and it takes three ushers and a cop to prove to him that he was three sections out of the way. Then a woman she sticks (*Continued on page* 124)

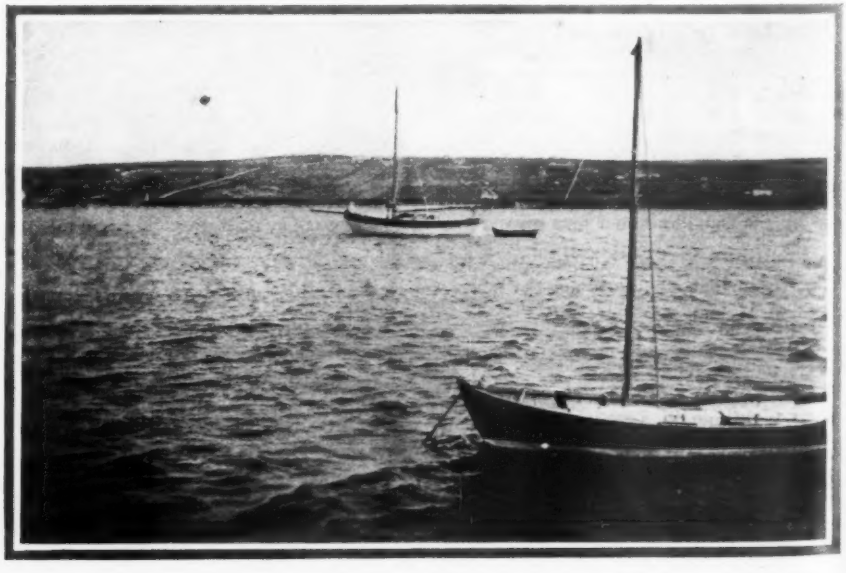
The crew of Liev Eriksson photographed with some friends at Mid Yell, Scotland, where they stopped. The men in the group, left to right, are Messrs. Fleischer, Nutting, Todahl and Hildebrand

When Liev Eriksson Stopped *in* Scotland

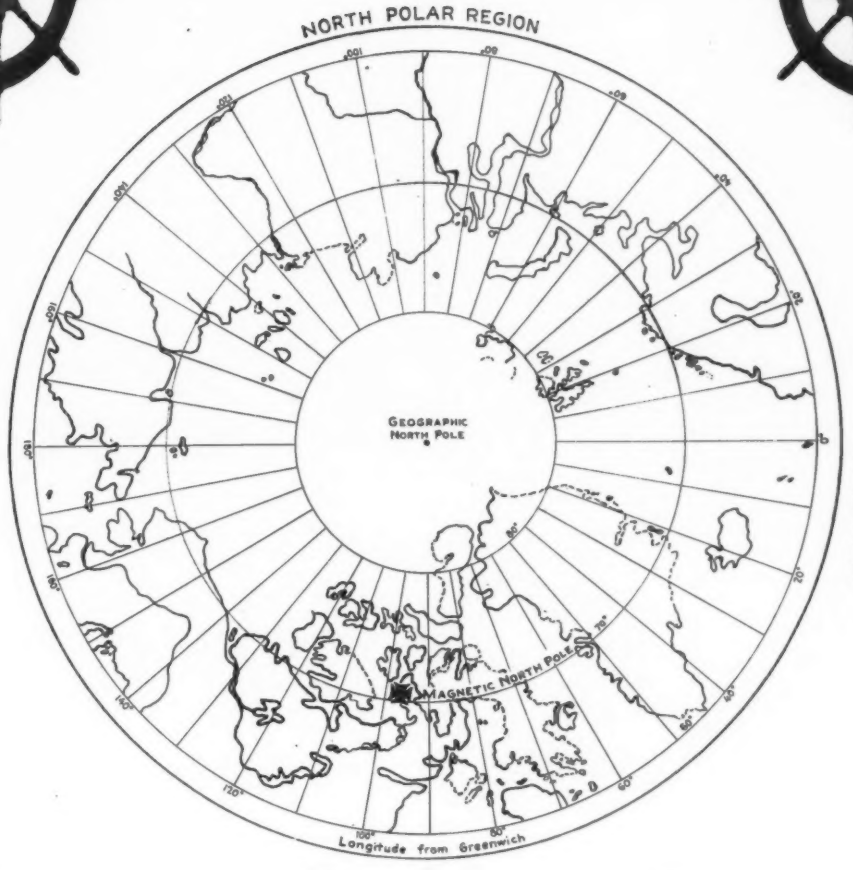
AS AN indication of the intensive and wide spread interest with which the adventure voyage of William Washburn Nutting on board the Norwegian sloop Liev Eriksson is being followed in this country, as well as abroad, we are pleased to publish some photographs of the boat and crew taken while they stopped over for a time in Scotland last July. John A. Barclay spent several pleasant hours entertaining the crew and writes us concerning the visit. It seems that the party stopped in the little harbor of Mid Yell and went ashore to visit. They made many acquaintances and the photographs reproduced here were made to commemorate the visit. They collected some souvenirs and in the bag at the young lady's feet were some peats, which they took with them intending to bring them around the circuit of the North Atlantic to New York.

Later in the day as the Liev Eriksson was preparing to sail again on her voyage, the other picture showing her at anchor in the stream was taken.

As mentioned in the article on the cruise of Liev Eriksson last month, an extensive search for the boat by wire, radio, and the U. S. Cruiser Trenton, has so far failed to give any clues as to where the boat might be. Many vague rumors and reports have been going about, but definite information concerning the boat and its crew is still lacking. It is the general opinion at this time that the boat has been blown into an ice field and frozen in. It will be necessary, of course, to wait for the spring thawing before more definite news can be expected.



Liev Eriksson at anchor in Mid Yell Voe on the morning of July 9, last year, just before she continued on her long cruise



A map of the North Polar Region, showing the relative positions of the Geographic North Pole and the Magnetic North Pole

Methods of Compass Correction

How the Motor Boatman with Limited Instrumental Equipment Can Find and Apply the Proper Corrections to His Compass

By G. T. RUDE

Lieut-Commander, U. S. Coast and Goedetic Survey.

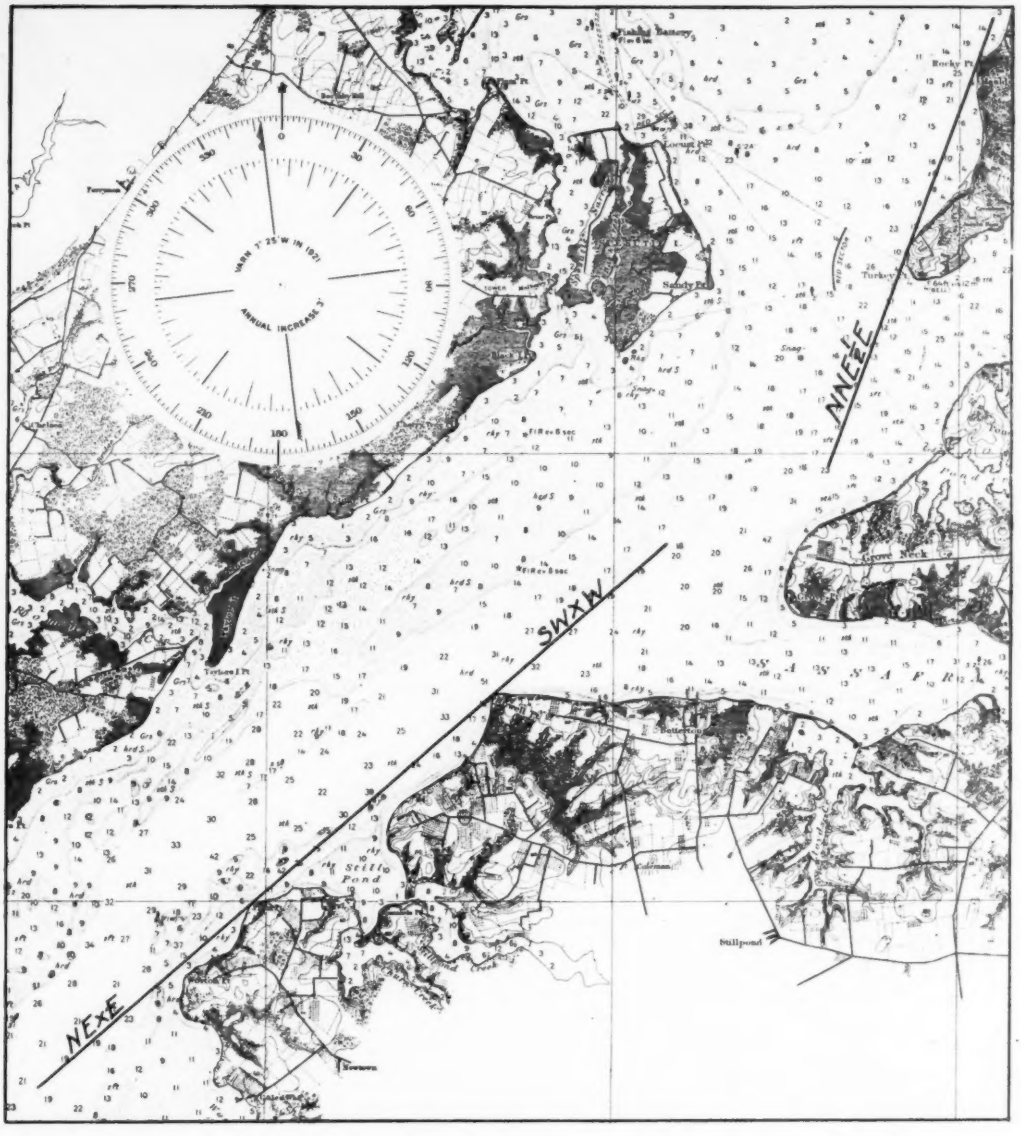
WITH all its wonderful powers of guidance the mariner's compass is by no means fool-proof; the direction taken by the needle is not generally towards the geographic north, but on some parts of the earth towards the east, on other parts towards the west of it, making a horizontal angle with the true geographic meridian, known among mariners as the magnetic variation and to landlubbers as declination of the needle. This variation from the true meridian varies from some 30° easterly to 45° westerly, being westerly in the Atlantic and Indian Oceans, and easterly in the Pacific Ocean.

The reason for this divergence of the needle from the true geographic meridian may be visualized by reference to the illustration, which shows that the locations of the *magnetic* north pole and the *geographic* north pole do not by any means coincide, the magnetic pole being located approximately in latitude 70° North and longitude 97° West.

It is well known that in the mariner's compass man has utilized that force which was a source of wonder to us as children in the small horseshoe magnet. In the case of the compass, however, the directive force of a great magnet, the Earth, upon a needle, free to turn in azimuth, has been utilized to hold that needle in the magnetic meridian of a place.

In addition to the fact that the magnetic meridians do not coincide with the geographic meridians, another element of trouble for the navigator enters — the disturbing effects on the compass of the iron in a vessel. Due to disturbance of the magnetic forces in a vessel from this cause, the needle is deflected from the magnetic meridian by a horizontal angle known as the deviation of the compass. And, too, this angle is not constant, being different on different headings of the vessel, in some directions of the vessel's head, adding to the known variation of the place, in other directions subtracting from it.

Even with all these vagaries of the needle it is possible and necessary, for the navigator at sea to keep track of



Reproduction of a portion of Coast and Geodetic Survey Chart No. 1226, showing the location of ranges 2, 3, and 8, referred to in the text

them by frequent observations on sun and stars. It is the purpose to illustrate to the motor boatman how he too, with his limited instrumental equipment, may readily obtain and apply corrections to his compass, so that his boat will head in the direction, or on the course, which he has laid down on the chart.

It may happen that a number of motor boatmen seldom have occasion to depend upon their compasses for correct headings, doing most of their cruising in clear weather and depending upon landmarks. This practice, it would seem, has at least two disadvantages: In case of heavy fog setting in, no dependence can be placed on the compass, since its errors have not been determined, and running aground or anchoring is the result. In the second place, failure to rely more fully on a compass, the errors of which have been determined, tends to the non-awakening, or at least to lessening, the boatman's interest in a very interesting subject—precise piloting. Even though the draft of the boat is such as to preclude the danger of running aground, a whole lot of gratification may be had by putting one's vessel on a given course and knowing that she is heading true on that course and at the end of the leg find that the course has been made good. In addition, constant employment of accurate work in piloting will tend strongly toward lessening carelessness, one of the contributing causes to many accidents.

If the motor boatman use the inner compass rose when laying his courses, he need not concern himself particularly with the *variation* of the compass, since on practically all coast charts allowance is made, when orienting the inner compass rose in chart construction, for this variation. In this article it is assumed that the motor boat compass is graduated in quarter-points, half-points, points, etc., and that in laying his courses the boatman will use the inner compass rose of the chart. It is also assumed for the first method given that he has no pelorus (dummy compass) or other instruments except the ordinary steering compass.

Napier Diagram

Before going into the details of the necessary procedure for obtaining and applying the compass corrections, a brief explanation will be given of the Napier Diagram, a device which facilitates a number of operations connected with compass work. These diagrams may be obtained at nautical stores or may be made on board from cross-section paper, provided one has the patience.

The Napier Diagram admits of a diagrammatic representation of the table of compass corrections (deviations), besides furnishing a means for converting compass courses into magnetic courses, or magnetic courses into compass courses. In other words, with a properly constructed diagram a boatman has only to determine with parallel rulers from the chart the magnetic course he desires to

make good, so far as his compass is concerned, turn to his Napier Diagram, and find out what course to steer by his compass to head on that course.

The Napier Diagram represents the margin of the card of a compass straightened into two vertical lines — from north to south by way of east, and from south to north by way of west. The vertical line is divided into thirty-two equal parts corresponding to the points of the compass, beginning at the top of the left diagram with north and continuing to south by way of east; the right diagram beginning at the top with south and continuing to north at the bottom of the diagram by way of west. For the purpose of this article this vertical scale has been subdivided into quarter-points. It is also divided into 360 degrees.

Method of Obtaining Compass Errors

The simplest method of determining the deviations of a compass on different headings with limited instrumental equipment is to steer on various ranges, the magnetic bearings of which are known or which may be scaled from the chart.

Let us assume that the motor boat is bound for Norfolk on the way south and has passed through the Chesapeake and Delaware canal into the Elk River. For the purposes of this article, ten ranges have been chosen on Chesapeake Bay between the mouth of Elk River and the mouth of the Potomac River, covering ten different headings all around the compass at approximately every third point of the compass. For this method, however, the magnetic bearing of the range need not necessarily be an even point of the compass. Following is a list of the ranges and the correct magnetic bearing as scaled from the chart. These are listed and numbered in the order plotted on the Napier Diagram:

Range Table.

No. 1	Cedar Point L. H. in range with Cove Point L. H.	N. ⅛ W.
No. 2	Left tangent Turkey Point, Elk River, in range with Rocky Point	N. N. E. ½ E.
No. 3	Tangent to Plum Point in range with Howell Point	N. E. by E.
No. 4	Range formed by Speed Trial Beacons on Kent Island	E. by S.
No. 5	Love Point L. H. in range with Baybush Point	S. E. ⅝ S.
No. 6	Cove Pt. L. H. in range with Cedar Point L. H.	S. ⅛ E.
No. 7	Point No Point L. H. in range with Point Lookout L. H.	S. S. W.
No. 8	Tangent to Howell Point in range with Plum Point	S. W. by W.
No. 9	Craighill Channel Front Range Light in range with Old Tower off North Point.	W. N. W. ¾ W.
No. 10	Tangent to Bodkin Pt., Patapsco River, in range with light on Hawkins Pt.	N. W. ¼ N.

Three of the ranges listed above, Nos. 2, 3 and 8, are shown in heavy lines in Figure 3, which is a section of U. S. Coast and Geodetic Survey Chart No. 1226, reduced in scale.

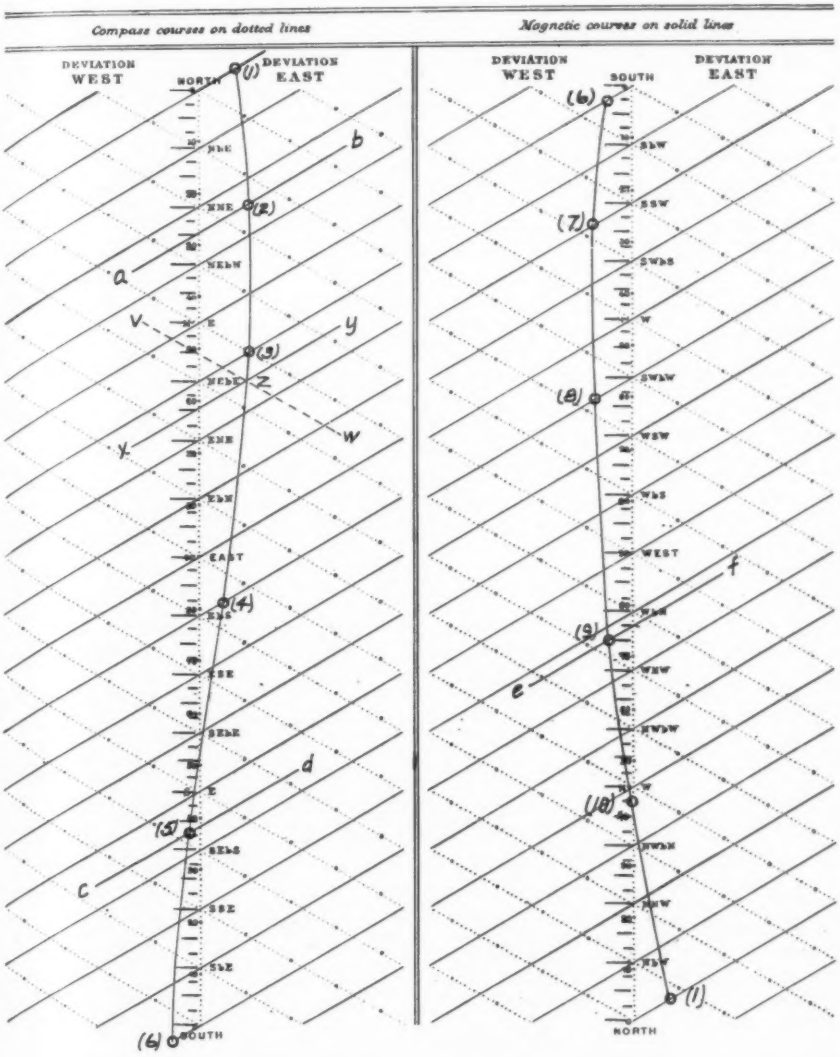
Plotting Curve on Napier Diagram

If the observations for compass error have been made with the boat's head on given magnetic courses, as in the case of running on the ranges listed above, the deviation curve is plotted on the Napier Diagram by measuring off on the vertical scale the number of quarter-points corresponding to the deviation in column D, Deviation Table, and laying it down—to the right if easterly and to the left if westerly—on the *plain* line passing through the point representing the bearing of the range on which the boat was heading; or, if the bearing of the range was not on an even point of the compass as in the case of range No. 2, Figure 3, then lay it down on a line drawn parallel to the plain lines through that division of the vertical scale which represents the bearing of the range, line a b, Figure 2. Each point thus plotted is marked with a dot and small circle, and a free curve drawn passing as nearly as possible through all the points.

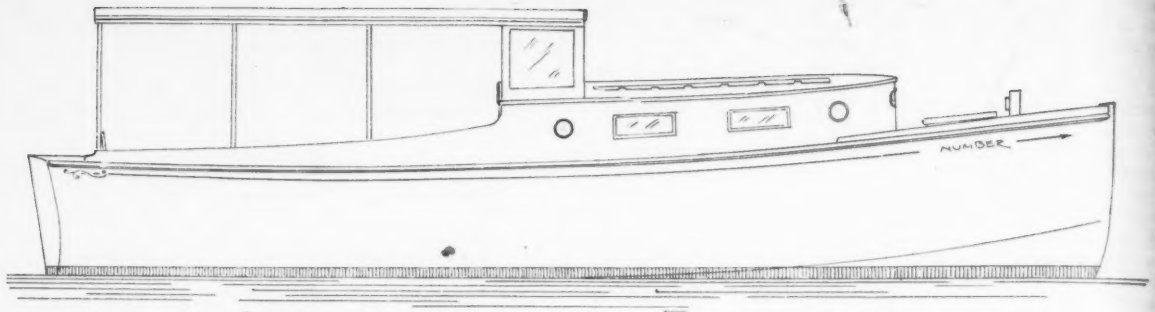
Use of the Napier Diagram

The method of using the diagram may best be illustrated by an example. Suppose it is desired to steer a correct magnetic course of NE by E ½ E; required the course by boat compass. The parallel ruler edge is laid on the diagram through the point

(*Continued on page* 118)



Napier diagram with the deviation curve plotted on it, from which magnetic courses can be converted to compass courses



Outboard profile of Cabrilla, the fast 29½ foot day cruiser designed by William Atkin

CABRILLA, *A Day Cruiser*

A Smart Design for a Speedy Boat Arranged for Easy Construction by Either the Amateur or Professional Builder

Designed Especially for MoToR BoatinG

By WILLIAM ATKIN

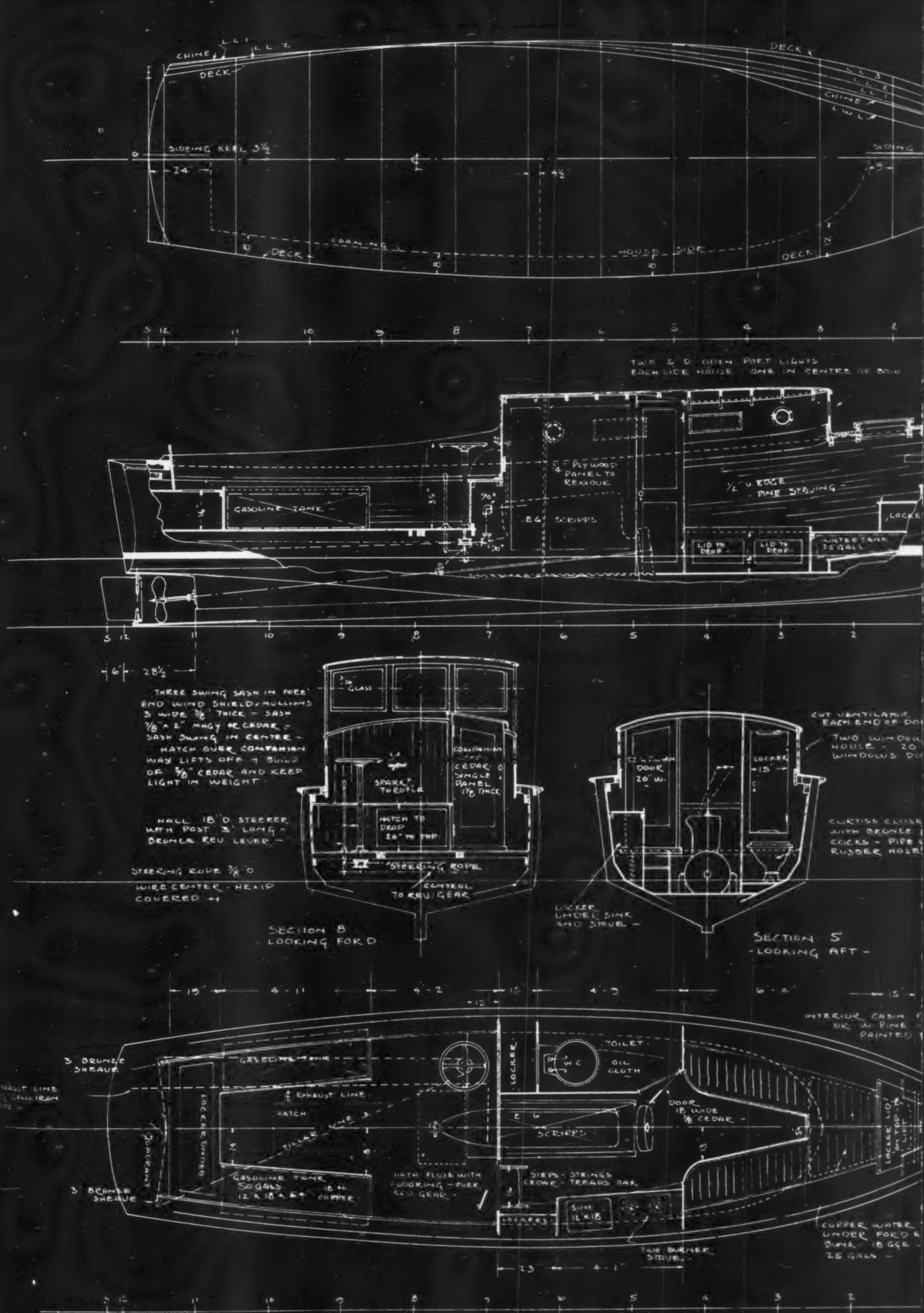
CABRILLA is a boat in which one can travel and yet feel secure if it becomes rough. She was designed for a speed of 25 miles an hour and for a motor developing 80 h.p. at 1500 r.p.m. She will do considerably over this speed if greater power is installed; but the weight of the entire power plant should be less than 1,100 pounds. In preparing the design it has been born in mind that you fellows who will build the boat will likely have varying ideas as to the motor that should be fitted. A six cylinder Scripps is shown on the plans, the model E 6. This motor should be able to turn a 17 inch diameter three blade propeller having elleptically shaped blades 6¼ inches wide, the pitch being 22 inches. This propeller at 1500 turns will give the expected speed. The Scripps may not suit every one, and as mentioned above some other motor may be desired. The Brennan model D 4, 4½ inch bore and 5 inch stroke turning 1500 r.p.m. would be about the lower limit of power for Cabrilla. This power plant will drive the boat at a speed of 17½ miles an hour using a 16 inch diameter, 16 inch pitch three blade propeller having blades 5⅞ inches wide. The lower powered motor would be my choice mainly because of its smaller dimensions and weight. However, as has been observed many, many times before, no two of us will ever agree as to what kind of motor to put in a boat. There are fifteen or twenty very excellent motors made that are within the maximum weight specified and developing from 40 to 100 h.p., and we shall not quarrel with you so long as you refrain from installing some old worn out motor car or airplane motor.

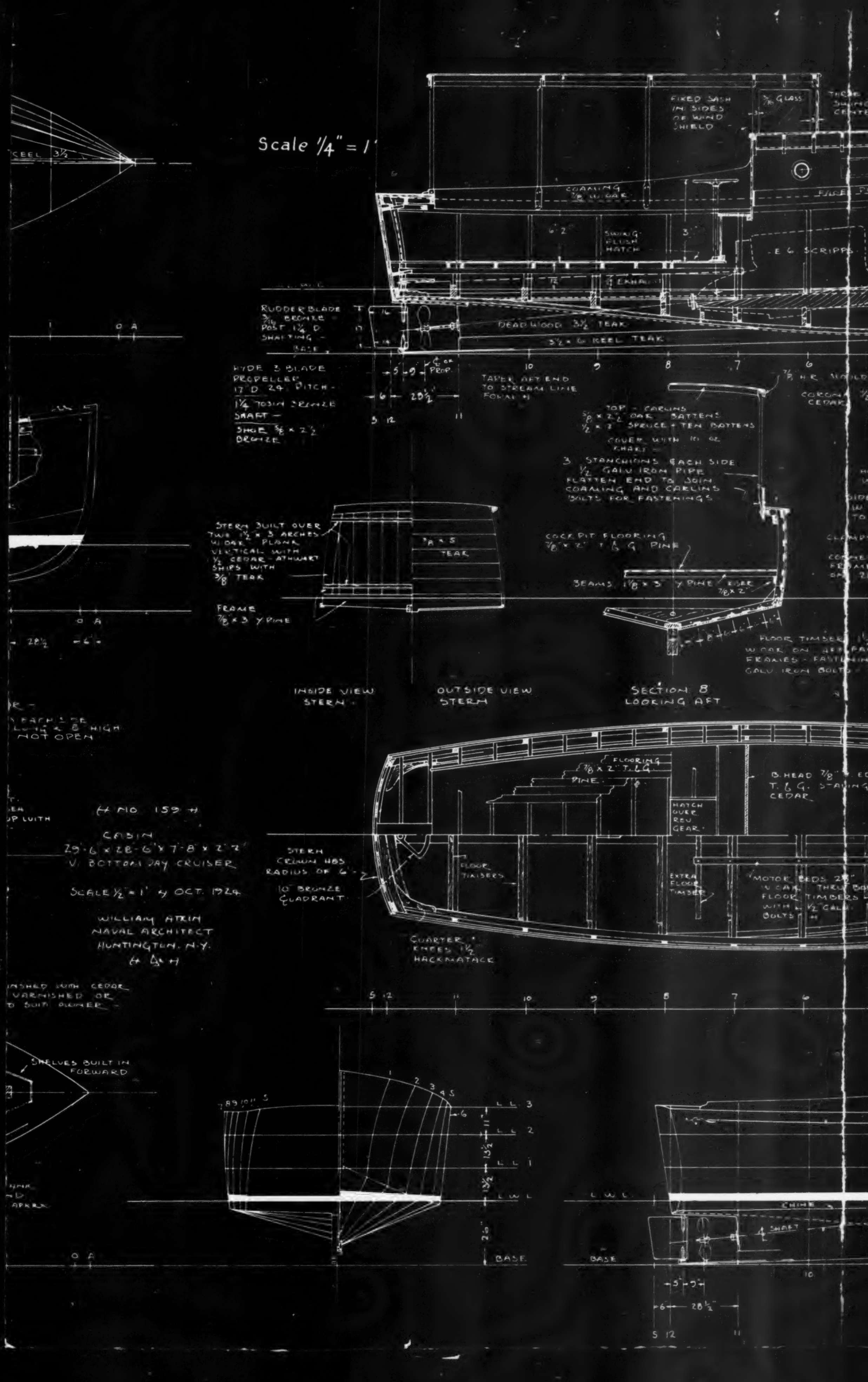
In referring to the drawing showing the lines it will be seen that the dimensions of Cabrilla are as follows: length 29 feet 6 inches, length on the water line 28 feet 6 inches, breadth on deck 7 feet 8 inches, draft 2 feet 2 inches; the freeboard at the bow is 4 feet 5¾ inches, at the stern 3 feet 1½ inches and at the lowest point of the sheer 3 feet. The sections below the water line are straight, as they should be in any V bottom boat, while the topsides are moulded for the sole purpose of appearance. We do not believe in building boats with sides that show an excess of flam, as the hollow in the sides is called, or with a lot of tumble home at the stern. Boats are difficult enough to build without this kind of thing; and after all is said and done top sides that are moderately moulded, or even quite straight, are every bit as serviceable and a sight stronger, too, than the former. If the weights in the boat are properly distributed the slightly curved sections will produce a boat that will be just as dry in rough water as sections that have excessive flam. In connection with this we might add that wherever complicated and intricate construction can be eliminated it should be. The simpler we can make the design and construction of our boats the better they will be; and by the same token, the simpler all the fittings the less trouble we shall have with an added lot of pleasure.

Despite the fact that the closed deadwood will retard the speed, it has been used. First off a boat with a long deadwood comes to little harm if it is run aground and is a far stronger structure as well, the after end of the deadwood should be pared down forming a fair line to the propeller. Using a light pattern stuffing box and setting the propeller well abaft the propeller post as shown in the construction plan will permit a free flow of water to the propeller and create but little interference with its performance. Very often boats of this type are built in which the keel extends aft with most of the deadwood left out; now this in no way helps the speed or the way in which the boat handles in rough water, and it always seems to me a long way around a very simple business. When this kind of construction is finished off with a three legged strut it is as faulty as anything can be because there are three cuts in the stream of water flowing past the bottom and into the propeller, and these cuts make it difficult for the propeller to do the work that it is designed to do. Therefore either build a boat with a solid deadwood or hang the propeller and shaft on a single legged strut and eliminate the deadwood completely.

The trunk cabin as used on Cabrilla has many advantages over the more usual raised deck type. Not the least of these is the ease with which the interior can be ventilated; then again the lower deck makes handling lines and anchors a safe occupation, especially if it is rough. There is an 8 inch wide deck all around the boat and with the hand rails provided on the cabin trunk, and the awning stanchions one can get around without danger of sliding overboard. Sometimes some of us forget that deck room and handiness are just as important in the design of a boat as room and comfort in the cabin, and this is especially so if bad weather is encountered. Then another thing to consider is the lower top weights of the trunk cabin type with consequently greater stability. Also, and it may seem a small matter but is not, the windage of the trunk cabin type is much less than the raised deck and therefore the former will be the faster.

The cabin in a small day boat of any kind is a secondary consideration and so one cannot expect too much in the


CHINE
L.L.1
L.L.2
DECK
SIDEING KEEL 3½
24"
4½
COAMING
HOUSE SIDE
L.L.3
L.W.L.
SPRING
TWO 5" D OPEN PORT LIGHTS
EACH SIDE HOUSE ONE IN CENTRE OF BOW
GASOLINE TANK
¼" PLYWOOD PANEL TO REMOVE
E6 SCRIPPS
½" V EDGE PINE STAVING
LID TO DROP
WATER TANK 25 GALS
LOCKER
THREE SWING SASH IN FORE END WIND SHIELD
HATCH OVER COMPANION WAY LIFTS OFF
OF ⅜" CEDAR AND KEEP LIGHT IN WEIGHT
STEERING ROPE
CONTROL TO REV GEAR
SECTION 8
LOOKING FORD
DOOR 20" W.
LOCKER 15"
LOCKER UNDER SINK AND STOVE
SECTION 5
LOOKING AFT
3" BRONZE SHEAVE
GASOLINE TANK
EXHAUST LINE
HATCH
TILLER LINE
LOCKER
TOILET
OIL CLOTH
W.C.
DOOR 18" WIDE ⅞ CEDAR
SCRIPPS
STEPS - STRINGS CEDAR - TREADS OAK
GASOLINE TANK 50 GALS
SINK 12 x 18
LOCKERS
TWO BURNER STOVE
COPPER WATER
25 GALS



Scale 1/4" = 1'
No 159
CABIN
29-6 x 28-6 x 7-8 x 2-2
V. BOTTOM DAY CRUISER
SCALE 1/2" = 1' 4 OCT. 1924
WILLIAM ATKIN
NAVAL ARCHITECT
HUNTINGTON, N.Y.
INSIDE VIEW STERN
OUTSIDE VIEW STERN
SECTION 8 LOOKING AFT
RUDDER BLADE 3/16 BRONZE
DEAD WOOD 3 1/2 TEAK
3 1/2 x 6 KEEL TEAK
HYDE 3 BLADE PROPELLER 17 D 24 PITCH
1 1/4 TOBIN BRONZE SHAFT
SHOE 5/8 x 2 1/2 BRONZE
TAPER AFT END TO STREAM LINE
STERN BUILT OVER TWO 1 1/2 x 3 ARCHES
FRAME 7/8 x 3 Y PINE
COCKPIT FLOORING 7/8 x 2 T & G PINE
3 STANCHIONS EACH SIDE 1/2 GALV IRON PIPE FLATTEN END TO JOIN COAMING AND CARLINS BOLTS FOR FASTENINGS
FIXED SASH IN SIDES OF WIND SHIELD
COAMING 7/8 W. OAK
SWING FLUSH HATCH
STERN CROWN HAS RADIUS OF 6'
10" BRONZE QUADRANT
QUARTER KNEES 1 1/2 HACKMATACK
FLOOR TIMBERS
EXTRA FLOOR TIMBER
HATCH OVER REV GEAR
SHELVES BUILT IN FORWARD
L W L
BASE

MOTOR BOATING's BUILD A BOAT Series

CABRILLA
A
V Bottom
Day Cruiser

Designed Especially for

MOTOR BOATING
119 West 40th St.
New York

by
William Atkin

DIMENSIONS

LOA	28	6
LWL	18	-
BREADTH	7	8
DRAFT		20
FREEBOARD BOW	4	5 1/4
STERN	3	11 1/2
LEAST	3	0

BASE - 26" BELOW LWL
STATIONS - SPACED 28 1/2"
LL'S SPACED 13 1/2"
LINES TO OUTSIDE OF PLANK
DIMENSIONS IN INCHES UP TO 36" OVER 36" IN FEET

way of quarters. Cabrilla has two full length built in bunks forward with locker and shelves in the eyes. The galley is abreast the motor on the starboard hand and contains a 12 by 18 inch sink, two burner stove, and the usual lockers for dishes, glassware, food, etc. An ice box seems unnecessary because drinks can be carried along in thermos jars; there is however plenty of room under either the sink or the stove for a built in box. The toilet room is amply large and has a hanging locker in its after end. All of the joiner work in the cabin *must* be made of the lightest kinds of materials, we should use cedar, white pine or thin ply wood for all partitions, locker fronts, tops, and doors; ⅝ inch stuff is plenty thick enough. The partition between the motor and the toilet room should be made in a manner that will permit its removal without tearing things all to pieces; this would provide easy access to the motor in case of overhauling.

The wood work in the cockpit should also be built with the idea of saving as much weight as possible. Remember that it is very easy to add 500 or 600 pounds by using heavy nailing pieces and unnecessarily heavy materials here. If the plans are followed exactly the boat will not be over weight and will be the buoyant craft intended, but if everything is made of heavier stuff the boat will be a failure. The cockpit floor is 12 inches above the water line and should be fitted with two 1½ inch lead scupper pipes to lead from the after corners. A 50 gallon gasoline tank is to be carried under each of the side seats and a locker for lines, spare anchors, etc. running athwartships. Of course there will be a hatch over the reverse gear, and another to give access to the hold for there will be a lot of room here which will take care of life preservers, a bucket, bilge pump, and much of the other stuff that one has to have on a boat. There is a very short house over the after end of the motor upon which the steering post is attached to give it rigidity. The top and back of this is pierced for hinged drops. This extension gives just enough room to carry out the exhaust piping without crowding and without it the weight of the motor would be too far forward. While the boat is at her moorings the top of the extension can be left partly open which will keep the cabin well ventilated.

The construction shows a straight keel which will be sided 3½ inches and moulded 6 inches; this can be made of yellow pine, white oak, or teak. The last would be the best if the boat is to be used in Southern waters as teak wood is not a favorite food for the teredo, in fact this wood is practically immune from attack by borers and will outlast any other variety of wood that can be used for boat building.

The deadwood will also be sided 3½ inches and moulded as shown on the plans. The stem with its knee will be sided 3½ inches and fastened with ⅜ inch galvanized iron bolts. The hole for the propeller shaft should be bored to a diameter of 1⅝ inches which will allow just enough clearance for the 1¼ inch shaft and which by the way is heavy enough for any high speed motor developing up to 100 h.p. The shaft should be made of Tobin bronze which is noncorrosive and most as tough as steel.

There will be an apron piece along the top of the keel and deadwood made of 1¾ by 6 inch white oak; this forms the rabbet along the garboard seam. It will be fastened with galvanized iron screws 4 inches long, number 14 size, and spaced at least 12 inches center to center. The fastenings through the keel and deadwood parts will be ½ inch diameter drift bolts. By all means paint the joints between all these parts for by so doing the life of the boat will be longer and there will be less likelihood of leakage.

The stem will be built up of three members as shown; it then can be gotten out of straight grained stuff which will be easy to secure and if the joints are carefully made the stem when finished will be equal to one cut from a natural crook. Oak, yellow pine or teak should be used for this and it will be sided 3½ inches. At the deck end it will measure 4 inches, 3 feet below this point it will measure 6 inches, at the water line it will be 8 inches and between stas. 1 and 2 it will be 5 inches. These dimensions can be changed one way or the other but be sure to allow plenty of wood behind the rabbet line for fastenings. There will of course be stop waters placed wherever there is the least possibility of water leaking along the joints in any part of the keel, deadwood, stem or stern.

The stern will be built up of two thicknesses of ½ by 4 inch white cedar laid over two crowned athwartship members as shown. The latter will be made of 1½ by 3 inch white oak, one located 10 inches from the bottom of the stern board, the other 6 inches below the deck edge. There will be a frame around the top, bottom and sides made of ⅞ by 3 inch yellow pine. All the fastenings should be galvanized iron screws about 2¼ inches long. Galvanized iron nails hold well and if these are driven into bored holes that fit tightly are almost equal to screws.

The frames will be made of (*Continued on page* 84)

Next Month—A Runabout

The How to Build design which will be published in the March issue of MoToR BoatinG, will be for a smart little runabout of 20 feet. This boat is intended for general utility service, and should make an excellent craft for the younger folks and the new comers in the sport of motor boating. The boat is arranged to accomodate a medium weight motor of about 25 h. p., and is of the V-bottom type. The planking is on the seam batten system, and accommodations are provided for about four persons.

TABLE OF OFFSETS NO 159 - DIMENSIONS IN FT. & IN TO OUTSIDE PLANK.

STATION	A	0	1	2	3	4	5	6	7	8	9	10	11	12	S
						HEIGHTS									
SHEER TO L W L	4 5½	4-5	4 2	3-11	3-8	3-5½	3-3⅝	3-2	3-0¾	3-0½	3-0	3-0	3-0¾	3-1¼	
GILT EDGE TO SHEER	0-4			FOLLOWS		SHEER		TO						0-4	
SHEER TO SIDE HOUSE					1-5½	1-6	1-6½	1-7							
" " TOP COAMING									1-0½	0-8¼	0-6	0-4¾	0-3¾		
CROWN HOUSE TOP					0-4	0-5	0-5½	0-5½							
BASE TO CHINE		3-4½	3-0	2-7¾	2-4¾	2-2½	2-1¼	2-0½					1-10		
" " RABBET			1-2	0-10½	0-9	0-8	0-7¾	0-8½	0-10½	1-1	1-3¾	1-6¼	1-8	1-8½	
" " BOTTOM KEEL			0-11½	0-9	0-7½	0-6½		STRAIGHT					0-0½		
L W L TO ℄ PROP SHAFT -								0-3½					1-2½		
						HALF BREADTHS									
DECK	0-0½	0-4½	1-9	2-8	3-3	3-7	3-9	3-10	3-10	3-9	3-7¼	3-4½	3-0⅜	2-8½	
CHINE -			0-11¾	1-8¼	2-4	2-10	3-3	3-6	3-7¾	3-8⅜	3-8	3-6¼	3-4	3-1	
L L 1			1-0	1-9½	2-5½	3-0¼	3-4¾	3-8	3-10	3-9	3-8	3-6¼	3-3⅝	3-0⅝	
L L 2			1-3	2-1	2-9	3-2¾	3-6¼	3-3	3-10	3-10	3-8½	3-6⅛	3-2⅜	2-11	
L L 3			1-5	2-4	3-0½	3-5¾	3-8½								

The complete table of offsets giving all necessary dimensions and figures for laying out the molds necessary to build the day cruiser Cabrilla

SEA SHELL, *A Serviceable Boat*

A Design and Building Instructions for a 17-Foot Boat Suitable for Rowing, Outboard Motoring, or Sailing

Designed Especially for MoToR BoatinG

By WILLIAM ATKIN

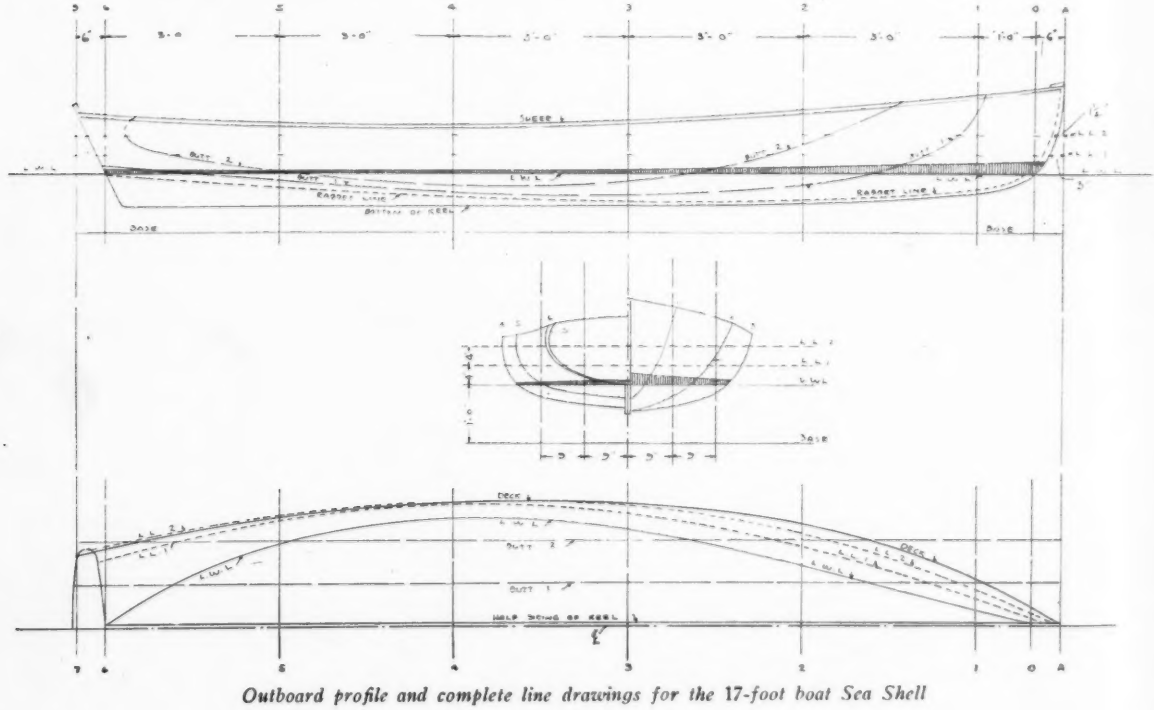
AFTER having published four or five designs of V bottom and flat bottom boats that would be suitable for use as rowing boats or for propulsion with an out board motor it occurs to us that many of MoToR BoatinG's readers will be interested in the plans of Sea Shell, the 17 foot by 4 foot 4 inch round bottom lapped strake boat herewith. Sea Shell follows the characteristics of a very successful rowing boat which was built a long, long time ago, but brought up to date, lightened and flattened out aft, so as to travel without squatting when driven with a motor. We can see no reason why this little craft would not sail well too: she can not be expected to carry a big spread of sail because of the light displacement and narrow beam, but with a single jib-headed mainsail having an area of between 60 and 70 square feet she would move along in fine style. Either lee boards, like those carried on a canoe, or a metal center board should be provided if the boat is expected to sail on the wind. Many would prefer steering with an oar fitting a row lock on the stern for this purpose. A rudder can be hung over the stern on regulation pintles, but is really not needed.

The lines show the spacing of the six stations as 3 feet. Now by setting these say at 2 feet the length of the boat will be pulled down to 12 feet and leaving all other dimensions as they are an excellent dink will result. We would not advise a greater reduction than this as the beam would be too much for the length. In building these small boats it is just as necessary to draw the lines to full size as it is with a big boat and it is urged upon you to lay the craft down on a convenient floor from the table of offsets and the dimensions shown on the lines. At first hand it seems a lot of extra work to do this preliminary work: at most it will take but a day or two and the time will be well spent. Wherever fine boats are built the lines are layed down and kept for reference until the boat is finished.

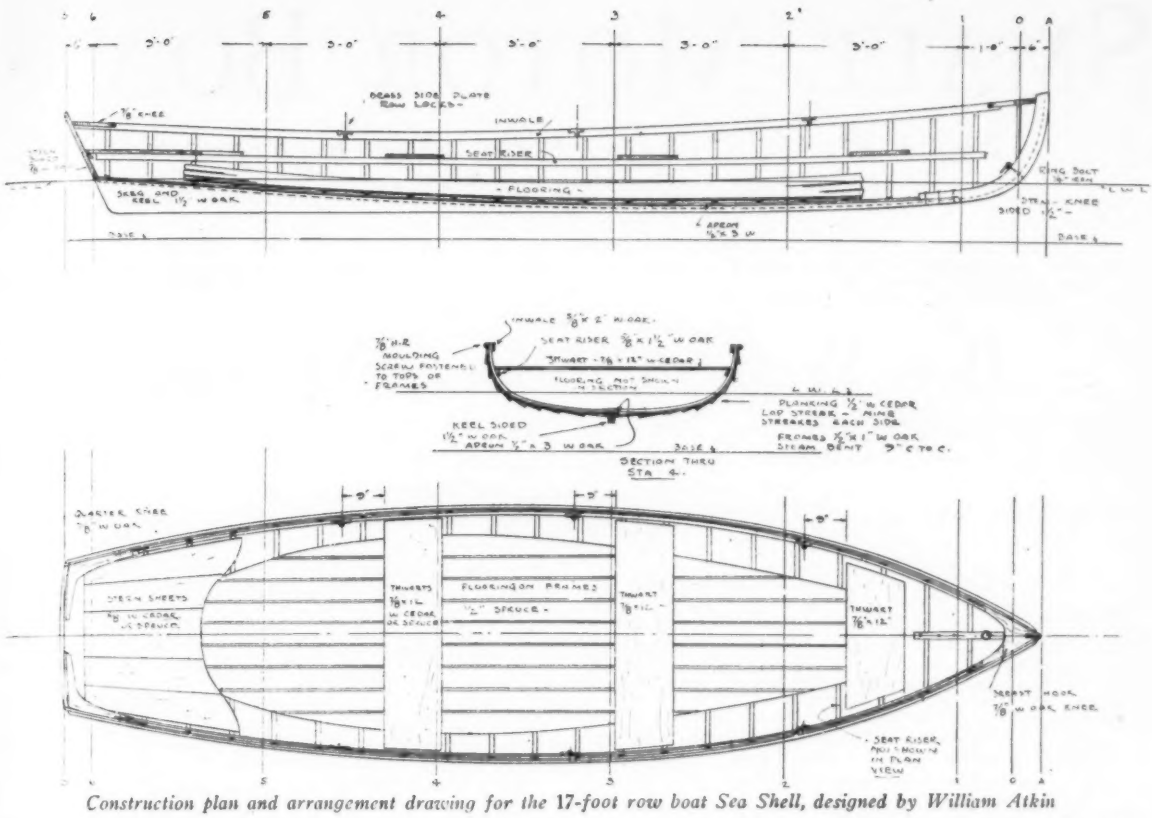
Sea Shell while a fine lined little craft will carry a good load; it will be noticed that there is a lot of flare to the topsides and thus every inch of immersion increases her displacement to a greater and greater degree. This feature will also stand her in good stead in rough water making a bouyant and dry craft. Before going into the construction it would be well to have her principal dimensions, which follow: length 17 feet, length water line 16 feet, beam 4 feet 4 inches, beam water line 3 feet 10 inches, and draft 7 inches, the freeboard at the box 1 foot 6 inches, at the stern 12 inches and the least freeboard, at station 4, is 10 inches. She will weigh approximately 200 pounds with hardware fitted.

The construction is not excessively light as she is a boat that is too big to be carried around anyway, and besides she is intended for hard service; something most small craft get. The keel and skeg will be made of white oak sided 1½ inches, and moulded as shown: there will be an apron piece along the top of this for the purpose of forming a rabbet for the inner edge of the garboard strakes. This will be made of ½ by 3 inch white oak and should be fastened with 1 inch number 8 brass screws set on 6 inch centers.

The stem will be made of a natural crook knee, either hackmatack or apple wood, the latter being easy to find and quite as good as the former. It should be sided 1½ inch and not over 3½ inches moulded. The lower end will be fitted to the keel with an 8 inch scarphed joint



Outboard profile and complete line drawings for the 17-foot boat Sea Shell



Construction plan and arrangement drawing for the 17-foot row boat Sea Shell, designed by William Atkin

and fastened with two ¼ inch brass bolts, the heads of these being countersunk into the keel and plugged. A stop water must be placed in this joint to prevent water from leaking through it.

The stern board will be made of ⅞ inch white oak, mahogany or spruce. No fault can be found with the latter for it is a most excellent wood for building small boats of any kind, being light, tough and cheap. The stern board will be fastened to the end of the skeg with a temporary post running up the outside, and that as well the aft end of the apron piece should be let into it and fastened with two long brass screws.

The frames will be steam bent of white oak or elm and should be made ½ by 1 inch and bent on the flat on 9 inch centers. It will be noticed that the frames run across the apron piece leaving an open space between the planking and the frame; this will make a fine limber hole and since the frames will extend in one piece from gunwale to gunwale gives good strength to the bottom. The frames should be fastened along the keel with boat nails, or better screws; two fastenings to each frame. A boat of this kind with continuous frames does not require floor timbers and when the time comes for it the floor boards can be screwed permanently to the frames.

In lap strake construction it is customary to lay the planking over the building forms and after it is all in place the frames are bent in and fastened. The planking in this case will be ½ inch white cedar with nine strakes each side, it will be much easier to plank the boat if the strakes are kept narrow, and considerable lumber will be saved. In lap strake planking the forward and after ends of the planks are rabbeted for a distance of 2 feet or so, so as to finish smooth at the ends; from ¾ to 1 inch is ample for the lap which is always fastened with copper rivets. In this boat these should be spaced about 4½ inches apart thus bringing a fastening between each frame and one on the frame, of course. The planks are not hollowed, but if a particularly nice job is to be done both sides of each plank should be hand planed before it is applied. The corners of the planks outside should be rounded off.

With the planking on and the frames all in the inwale and seat risings should be fitted. The former will be made of ⅝ by 2 inch white oak, mahogany or spruce and will be through fastened to the top strake and frame heads on every frame. There will be a breast hook forward and quarter knees aft made of ⅞ inch oak or hackmatack. The inwales must be scarphed in these so as to form a neat joint and to give continuity to the deck line. The seat rising will be made of ⅝ by 1½ inch white oak and must be fastened to every frame with screws.

Before the flooring is laid varnish or paint the inside because it will be impossible to (*Continued on page* 86)

Table of offsets, containing all dimensions for laying out the 17-foot row boat Sea Shell

TABLE OF OFFSETS NO – 119 – IN FT. AND IN.

STATION	A	0	1	2	3	4	5	6	S
HEIGHTS									
L.W.L. TO SHEER	1-6	1-5½	1-4¼	1-1	0-11	0-10	0-10½	1-0¼	1-0½
BASE TO BUTT. 2				1-6¼	0-10½	0-9¾	1-0⅝		
" " " 1			2-1	0-9¾	0-7¾	0-8¼	0-10¾	1-1¾	
" " RABBET		1-2¼	0-9	0-6¾	0-6⅜	0-7¼	0-9¼	0-11¾	
" " BOT. OF KEEL		1-0	0-9⅛	0-6	0-5½	0-5½	0-5½	0-5½	
HALF BREADTHS									
DECK	0-0¼	0-3¾	0-9¾	1-5¼	2-1⅜	2-1¾	1-10⅜	1-4½	1-3¼
L.L. 2		0-2⅝	0 7½	1-7⅜	2-1¼	2-1¾	1-11⅜	1-5	
L.L. 1		0-1½	0-5½	1-4⅝	1-11½	2-1⅜	1-10¼	1-2¼	
L.W.L.		0-0¼	0-3¼	1-0½	1-8¼	1-10½	1-5¼	0-0¾	

SMALL MOTOR BOATS

Their Care, Construction and Equipment

A Monthly Prize Contest Conducted by Motor Boatmen

Questions Submitted for the April Prize Contest

1. Describe and illustrate a practical method of fitting a cotton rope fender around the dinghy.
(Submitted by E. T. K., Wilmington, Del.)

2. Describe and illustrate with sketches method of replacing sections of defective or rotton planking in the hull.
(Submitted by H.A.H., Baltimore, Md.)

Best Ways to Preserve Moorings

Proper Methods of Storing and Preserving Mooring Anchors and Equipment — With Useful Hints on Relocating the Anchors Which Have Been Submerged Over the Winter

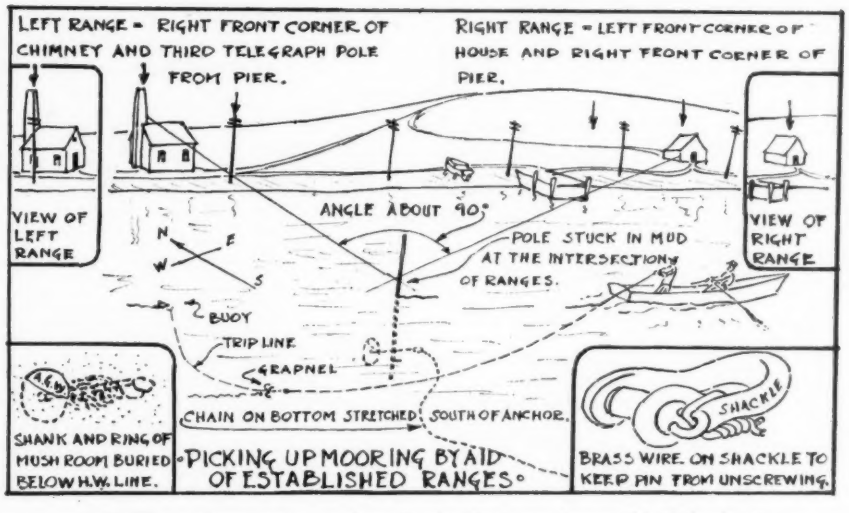
Answers to the Following Question Published in the December Issue

"What is the most suitable way to preserve the moorings during the winter, should they be raised or left in the water? And how can they be relocated."

Locate Mooring by Bearings

(The Prize-Wining Answer)

THE proper way to take care of a mooring is first to have a good mooring, consisting of a proper weight mushroom anchor, or suitable heavy weight. The chain should be of ample weight and length, with a heavy swivel at the anchor and if a rope leader is used, have another at the top end. All parts should be put together with heavy screw-eye shackles, the pin greased, screwed up tight and secured from turning by means of a piece of one-eighth brass wire passing through the eye and snugly bent in place (see sketch). This will prevent accidental unscrewing and will permit taking apart at will, without difficulty. The shackles and swivels, in fact every part of the mooring should be of the most substantial construction. The parts need not be galvanized unless the chain goes up on deck. Then it is advisable to have the upper portion galvanized to prevent rust streaking the deck, and top sides. If a rope leader is used, it should be examined often for chafing, especially the part under water, and it should be replaced with new rope every season. This may seem a bit extravagant, but it is poor business to endanger a valuable boat to save the cost of a piece of rope. A safe mooring is a cheap form of insurance.



A. G. W. has drawn out a number of valuable suggestions on his little sketch

When putting the mooring down, it is a good plan to make note of the position of the anchor in the ship's log, note book or on the inside cover of the coast pilot where it will not be lost. This information is of great value in recovering the mooring should the buoy be lost or the chain dropped. When the anchor hits bottom, hold the chain taut, and get two ranges on some permanent objects. They should be taken about perpendicular or at right angles to each other.

The best way to keep a mooring over the winter is to keep it either wet or dry. If it is left out in the yard or on the beach it is exposed to alternating wetting, and drying, and it will rust very rapidly. It is a good plan to drop the moor-

Rules for the Prize Contest

ANSWERS to the above questions for the April issue, addressed to the editor of MoToR BoatinG, 119 West 40th St., New York, must be (a) in our hands on or before February 25, (b) about 500 words long (c) written on one side of the paper only (d) accompanied by the senders' names and addresses.

The names will be withheld and initials used.

QUESTIONS for the next contest must reach us on or before February 10. The editor reserves the right to make such changes and corrections in the accepted answers as he may deem necessary.

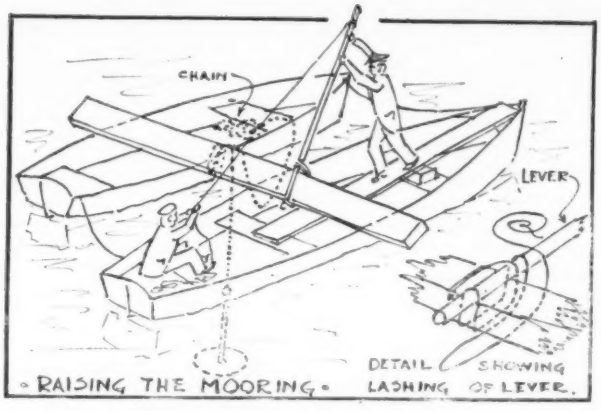
The prizes are: For each of the best answers to the questions above, any article or articles sold by an advertiser advertising in the current issue of MoToR BoatinG of which the advertised price does not exceed $25, or a credit of $25 on any article which sells for more than that amount. There are two prizes — one for each question — but a contestant need send in an answer to only one if he does not care to answer both.

For answers we print that do not win a prize we pay space rates.

For each of the questions selected for use in the following month's contest, any article or articles sold by an advertiser advertising in this issue of MoToR BoatinG of which the advertised price does not exceed $5, or a credit of $5 on any article which sells for more than that amount.

All details connected with the ordering of the prizes selected by the winners must be handled by us. The winners should be particular to specify from which advertisers they desire to have their prizes ordered.

ing at the end of the season, provided that there is no doubt as to its good condition and that there is no danger of its being picked up and stolen by strangers. At most yacht clubs the mooring grounds are generally under observation. If the mooring has been properly prepared as suggested at the beginning of this article it ought to give service for at least three seasons, without requiring to be raised. The most wear occurs at the top end of the chain between the water line and the bottom. At the beginning of each season, the chain should be pulled up as far as possible for examination.



The method suggested by A. G. W. for raising a mooring which has been buried in the mud

To drop the mooring note the location, if it has not already been done; note the way the chain will be stretched; remove the buoy; attach about 25 feet of old rope to the chain and let it drop. To pick up the mooring in the spring, locate the position of the anchor with the range notes; stick a long pole into the mud, or if the water is too deep, drop an anchor with a buoy. This will prevent covering too much ground when grappling for the chain. Now grapple for the chain, and be sure to have a trip line with a buoy secured to the bottom of the grapnel in case the grapnel should hook into a link in the chain close to the anchor or some other immovable object. See sketch.

Should it be unsafe to drop the mooring, or if there is any doubt as to its safe condition, it should be raised. To keep all parts of the mooring in good condition the chain should be unshackled; the threaded parts of loose shackles greased and all parts stored in a dry place. The wrought iron parts of the mushroom, the shank, and ring, should be painted with red lead paint.

Another good way to keep the mooring, would be to bury the shank and ring of the mushroom, also the chain, on shore below high water line, where it will be kept in perfect condition. Paint your initials on the exposed part of the mushroom, and make a note of its position in event it should be entirely covered over.

A mooring can be raised with two large skiffs, and a good timber measuring about 4 by 8 inches, long enough to extend across the two skiffs, and a 2 by 4-inch stud or 2-inch piece of pipe, 7 to 8 feet long, for a lever. The timber is laid across the skiffs, and the mooring chain made fast to the middle of the timber; the lever secured with a ½ inch rope is tied to the timber, and a bight is passed over the lever; under the timber and hooked on the projecting end of the lever, and drawn taut. This is repeated several times until it is thoroughly secure. With the lever give the timber a half turn, tightening up the chain. Remove and replace the lever; turn the timber again; and repeat the operation until the moring is raised.

It will be necessary to shove the timber forward occasionally, as it rolls aft when turned. The suction of the mud can be broken by poking the bottom around the anchor with a pole. It may be necessary to have the rising tide break the anchor out of the mud. Only recently the writer broke out and raised a 400-pound iron weight by this method.

A. G. W., College Point, N. Y.

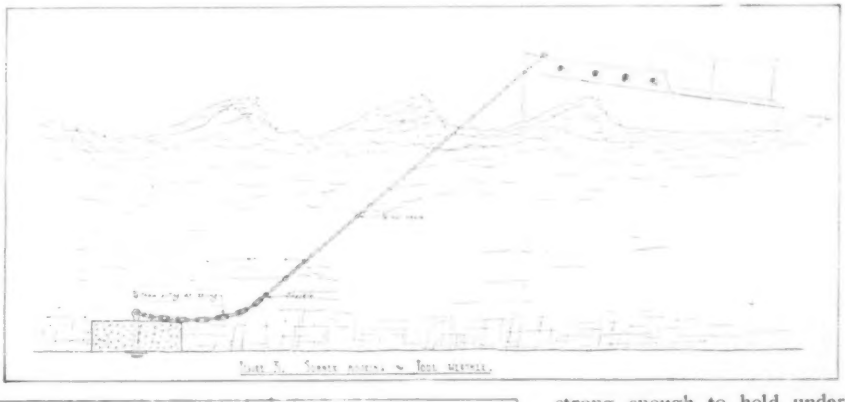
Use Large Chain for Safety

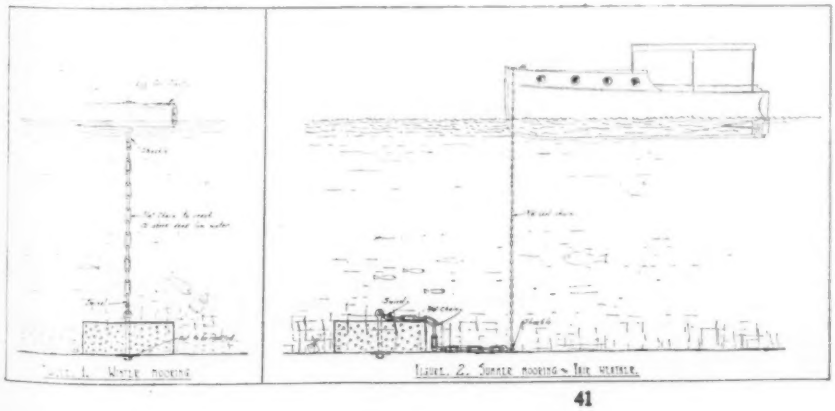
UPON the condition and strength of your permanent home mooring depends the safety of your boat for probably seventy-five per cent of the time she is afloat. Therefore, to reduce hazard to the boat and mental anxiety to a minimum, the mooring should be above all, strong enough to hold under all conditions. A mooring which might have been ample in strength when put down, will be weakened, if not properly cared for, from two causes; wear and rust or corrosion.

As it is a rather difficult job to raise a mooring for inspection this can be avoided by following certain rules when the mooring is first put down. If properly constructed a mooring should be safe for from six to ten years in salt water, without raising.

(*Continued on page* 63)

J. L. P. has drawn up several useful suggestions which can be embodied into the mooring equipment with profit to the boatman





How To Keep Track of Running Lights

Sketches and Descriptions of Clever Devices Which the Boatman Can Build to Enable Him to be Certain of the Continuous Burning of His Navigation Lights

Answers to the Following Question Published in the December Issue

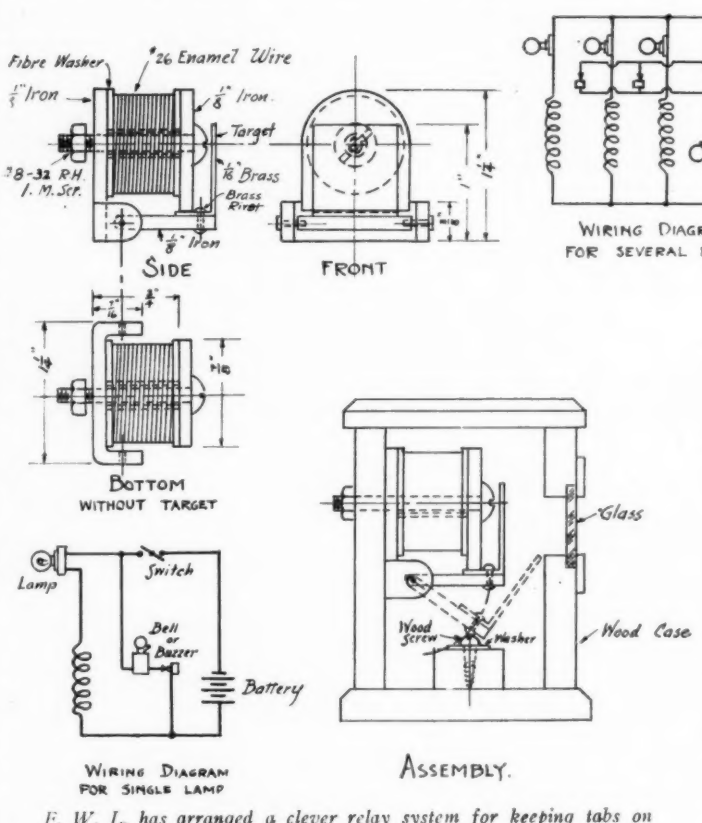
"Explain with sketches the construction and installation of a running light indicator to show that the lights are lighted."

An Audible Indicator

The Prize-Winning Answer.

ONE of the most essential items of boat equipment, particularly where a boat is used at night is the assurance that the running lights are at all times properly lighted and displayed. While it frequently happens that the old style oil lanterns blow out, or smoke themselves up to such an extent as to void their purpose, it is not practical to arrange the tell tale device to an oil lantern. So many things are possible with electricity and electrical circuits, that it is a simple matter to arrange a device which will at all times give positive evidence that the running lights are properly burning. Small boats where the lights are all readily visible from a position on deck, do not require as elaborate an outfit as a larger vessel where the lights are widely separated and not so accessible.

The device illustrated in the accompanying drawing provides a method of constructing and wiring a positive running light indicator. This will give a visible signal at all times, while the lights are burning, and will ring a bell or buzzer instantly should any one light go out of service for any reason, and at the same time will indicate which of the several lights has failed. For the small boat one signal and alarm will answer for all of the lamps, and will merely call attention to the fact that one has failed. It will then be an easy matter to check up and determine which needs replacing.



F. W. L. has arranged a clever relay system for keeping tabs on the burning of the running lights

The indicator consists of a relay constructed of ⅛-inch soft iron shaped as shown, with a core of thin brass tubing, having an outside diameter of about ¼-inch. Over the tubing, at each end, place a fibre washer, and wind around the core a sufficient quantity of number 26 enameled wire to give an outside diameter of ¾ inches. Drill the iron to provide sufficient clearance for a number 8-32 round head iron machine screws as shown. The armature for the relay is to be ⅛ inch iron with 1/16 inch brass target plate attached as shown, and arranged to pivot on an easily operated hinge. The brass target may be painted white on its face, or better still may be painted with some form of the luminous paint, which will give an indication in the darkness. As mentioned, this indicator may be used for a single lamp or a group of lamps, operating through the same circuit, or as is shown on the drawings, it can be arranged to provide a separate circuit for each individual lamp of the running lights. If arranged for a series of lamps, it will be necessary to connect the iron at the back of the coils, together, and also to connect the wood screws forming the bell contacts together.

The single relay or several relays may be housed in a wood cabinet, which may be constructed of ¼ or ⅜-inch wood and have a glass eye before each target. While the lamps are burning the target will show white, and upon any light going out of service the target will drop and show black. at the same time the bell or buzzer circuit will be thrown in and the bell or buzzer will ring. The usual switch will connect entire circuit and upon being thrown off will cut out both the lamps and bells.

F. W. L., Staten Island, N. Y.

A Light Tell Tale

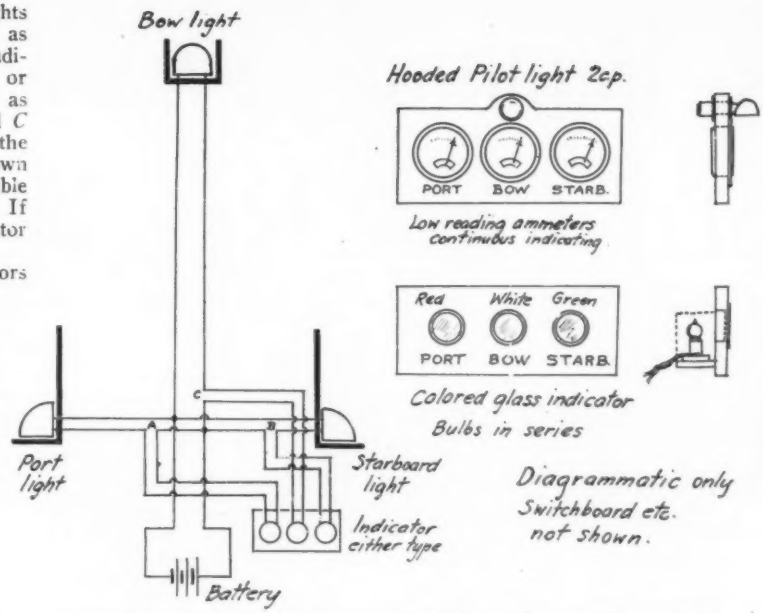
THERE are two ways of installing a running light indicator, located either in the cabin or on bulkhead; either two lights in series on each circuit, one in running light and one on indicator board, or else a low-reading ammeter in place of the lamp on the indicator. The first has the advantage of easy observation, especially if colored glass is used in front of the indicator bulbs, but the latter will use more current and the voltage used for the bulbs must be half the battery voltage due to the series circuits. Then should one of the indicator bulbs burn out or break, the running light would go out also. The ammeter indicator, however, uses but little extra current (do not use voltmeters) and is no more liable to break or cease indicating than when used on the dash of an automobile; running light bulbs are of the regular battery voltage.

The wiring is the same for either type of indicator, but as the whole current consumed by a running light bulb passes through its indicating ammeter, the connecting wires must be heavy enough to carry this current as well as to prevent an excessive voltage drop due to the extra amount of wire used. No. 14 or even 12 weatherproof or rubber covered copper wire is recommended for a low voltage

system. Running lights are wired in series as usual, then the indicating ammeters or series bulbs cut in as shown at *A*, *B* and *C* in the diagram; the stern light is not shown as this is usually visible from the cockpit. If not, a fourth indicator may be added.

Place the indicators either on the regular switchboard or make up a special board and locate where it may be easily seen by the steersman. The ammeter type requires a hooded pilot bulb of two cp. in front of the board to illuminate the ammeter dials; these should be of the lowest reading possible to clearly indicate the passage of current. A series-bulb indicator has three holes in the board with the bulbs mounted behind. Red, white and green glass set in the openings correspond to the running lights and make observation easy.

H. H. P., Los Gatos, Calif.



H. H. P. has shown two systems, one of which uses low reading ammeters, while the other uses series lamps

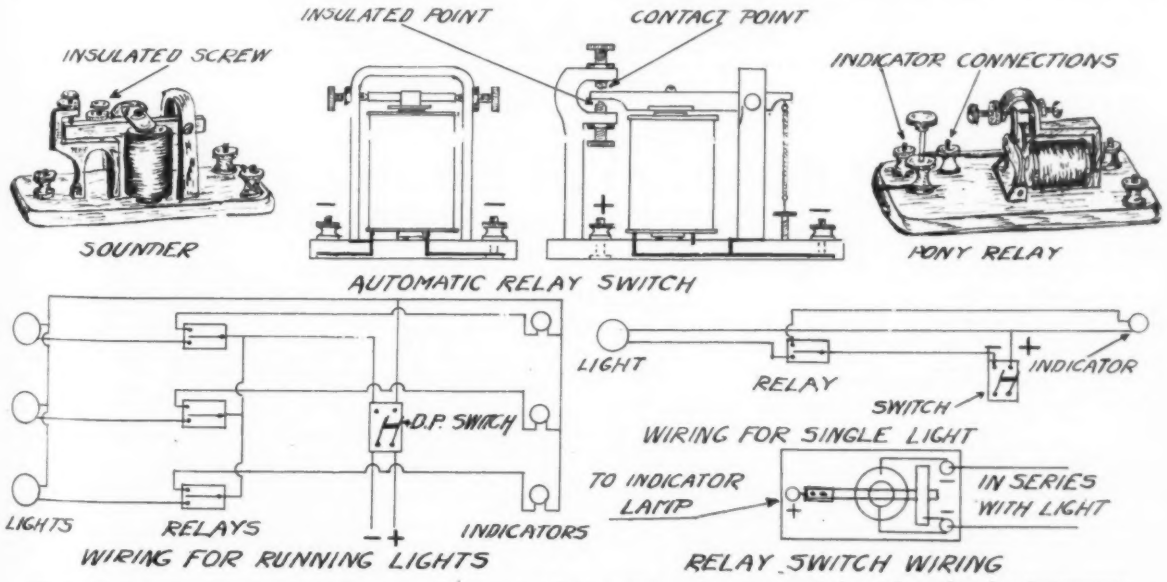
Running Light Indicator

ARE my running lights lighted? Very likely, this is a question that you have asked many a time when you saw a steamer bearing down on you, apparently dead ahead. Of course the lights were all right but, you could not see them or their reflection and it would not be practical to leave the wheel and crawl over the deck at such a time. It would not be much trouble to rig up a running light indicator that would show as soon as the light went out.

Get a learner's telegraph sounder of low resistance and tap the anvil where the lever adjusting screw bears. Into the tapping screw a piece of hard rubber or fiber so that when the lever is drawn down by the magnets the anvil is insulated from the rest of the instrument. Connect the sounder in series with one side of the lighting circuit so that the current passes through the magnets. As long as the lamp burns the lever will be held against the insulator but, should the lamp burn out, the circuit will be broken and the lever will spring against the upper screw, closing the circuit to a lamp or annunciator drop so located that it can be easily observed from the steering position.

You can buy, for about $3.00, a low resistance pony relay, made for burglar alarm work, that will be all ready to connect. This instrument is made with adjustable contacts and adjustable spring tension on the armature so that a very nice adjustment can be made. With a more expensive relay, the adjustment may be set so that when all lights are burning the armature will be held off contact, but should a lamp burn out the armature will leave the magnets due to the weakening of the current passing through them, and will close the indicator circuit, but it will not show which light is out.

The wiring is very simple. Connect the sounder or relay in series with the running light on the negative side of the line and, with the sounder, ground the lever to same side. From the insulated anvil (*Continued on page* 63)



W. B. M. has also introduced a relay controlled running light system, using the regulation telegraph relay instruments

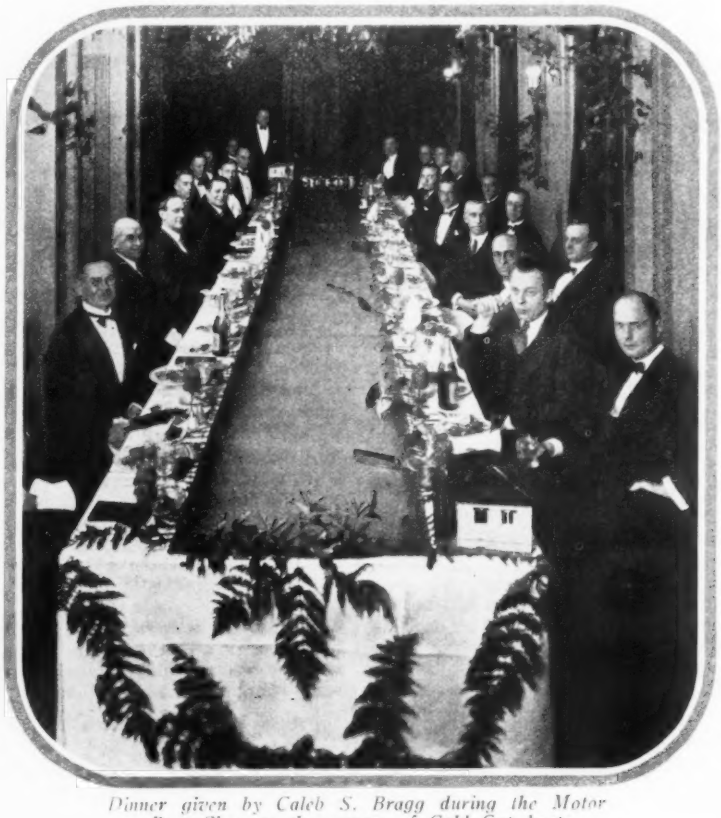
Boats Building Everywhere *For* Gold Cup Regatta

Great Series of Races to be Held in the East Next Summer

NEW YORK'S Gold Cup Regatta next summer will be held at Port Washington on Manhasset Bay, the exact dates being August 26-30. The decision to hold the regatta on Manhasset Bay was made at the request of Caleb S. Bragg of the Columbia Yacht Club, owner of Baby Bootlegger, the winner of the Gold Cup at Detroit in 1924.

Manhasset Bay is ideally located for the Gold Cup Race and is decidedly a more preferable place than either the Hudson River or Pelham Bay which had been suggested and considered as a possible location. Neither of these locations are at all suited for the type of boat which will be raced at the Gold Cup Regatta next summer. The Hudson River might have been satisfactory from a spectator's point of view, but from the racing man's, it is impossible. At Pelham Bay, neither the spectator on land, the visiting yachts or racing craft could have been accommodated.

Photograph by M. Rosenfeld



Dinner given by Caleb S. Bragg during the Motor Boat Show to the owners of Gold Cup boats

Any regatta of Gold Cup importance held anywhere in the East must necessarily be a yachtsman's event. Next summer's regatta, we venture to suggest, will attract thousands and thousands of spectators' yachts. This gallery will completely surround any speed boat race course, ten or twelve deep, so that land spectators or—as these are sometimes called, the General Public will have very little chance of getting a close-up view of the race boats unless they are on board a boat, no matter where the race course is laid out. It matters not whether the land surrounding the race

(*Cont. on page* 64)

Program of Events

Event No.

August 26–27

1. *Cruisers* — Philadelphia to Manhasset Bay for James Craig Trophy. About 250 miles.
2. *Express Cruisers* — Middletown, Conn., to Manhasset Bay for Handicap Express Cruiser Championship Trophy. About 115 miles.

Friday—August 28

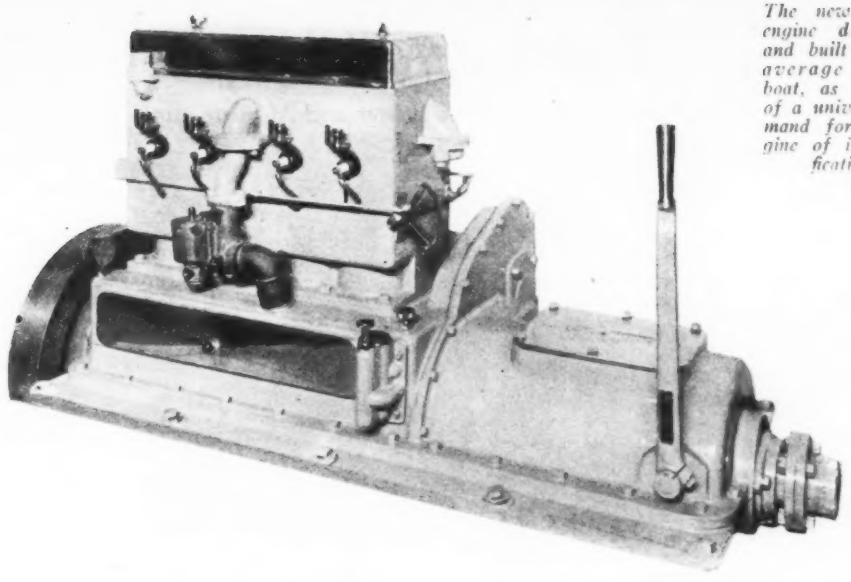
3. *Cruisers* — Handicap Championship of America. Manhasset Bay to Stratford Shoal and return. About 80 miles. 10 a. m.
4. Speed — Mile Trials — all day.

Saturday—August 29

5. 2:00– 2:45 First heat — Gold Cup — 30 miles.
6. 2:50– 3:25 Coast Guard Boats — 12 miles.
7. 3:30– 4:15 Second heat. Gold Cup — 30 miles
8. 4:20– 4:40 Baby Gar Invitation — 12 miles.
9. 4:45– 5:30 Third heat. Gold Cup — 30 miles.
10. 5:45– 6:15 Free for All Displacement Runabouts — 24 miles.

Sunday—August 30

11. 10:00–10:30 Outboard Motor Race — 3 classes — 3 miles.
12. 10:35–10:55 Aquaplane Race — ½ mile.
13. 11:00–11:50 Truth Race for all boats — not over 10 miles.
14. 12:00–12:20 First heat, Dodge Trophy — 12 miles.
15. 1:20– 1:40 Second heat, Dodge Trophy — 12 miles.
16. 1:50– 2:05 First heat, 151 Class Hydroplanes — 6 miles.
17. 2:20– 2:40 Third heat, Dodge Trophy — 12 miles.
18. 2:50– 3:05 Second heat, 151 Class Hydroplanes — 6 miles.
19. 3:20– 3:40 Fourth heat, Dodge Trophy — 12 miles.
20. 3:30– 4:20 Race for Sea Skiffs (Bootleggers) — 12 miles.
21. 4:30 Race for International Trophy — 105 miles.



The new Frisbie engine designed and built for the average motor boat, as a result of a universal demand for an engine of its specifications

Everybody's Power Plant

An Engine Built for Everybody's Motor Boat and at a Price That Will Fit Everybody's Pocketbook

DURING the past two years, The Frisbie Motor Company of Middletown, Connecticut, has conducted through its field organization and the army of Frisbie engine owners a campaign based on questionnaire letters with a view of determining from these distributors and owners just what size and type marine engine appealed to the majority.

The compilation of these replies was extremely interesting in that for the average use, and consequently for the average motor boat, the indications all pointed to a four cylinder, four cycle machine with valves in head and removable head. The power output required averaged 20 h.p. and the majority of suggestions all indicated the demand for a relatively small compact engine which would develop this power at a speed sufficiently low to warrant long life to the engine and freedom from service troubles.

As a result of this campaign, The Frisbie Motor Company introduced at the Twentieth Annual Motor Boat Show in New York, their new model S, four cylinder, 15-25 h.p. machine for which it is felt there will be a universal demand in that the engine conforms in all respects, including price, to the specifications sent in from a wide and varied field of interests.

The new motor is a four cylinder, four cycle, valve-in-head, detachable head machine having a bore of 4 inches and a stroke of 5 inches. The motor develops 15 h.p. at 600 r.p.m., 20 h.p. at 750 r.p.m. and 25 h.p. at 900 r.p.m., thus giving its full power at a speed below 1000.

A higher speed model S engine will shortly be produced to develop from 30 to 40 h. p.

The cylinders are cast en-bloc, of a special grade of fine grey iron, accurately ground to size and containing very ample water jacket space.

The cylinder head, containing intake and exhaust manifolds, is a unit casting and when bolted down to the cylinder block over a copper asbestos gasket not only does away with unsightly manifolds, but at the same time offers a unique arrangement of preheating the incoming gases, which of course aids materially in carburetion.

By incorporating the intake and exhaust manifolds within the cylinder head proper, the external appearance of the motor is made exceptionally clean and good looking as there are no projections jutting out of either side of the engine above the carbureter intake proper.

A polished cast aluminum cover fits securely over the cylinder head, entirely enclosing the valve mechanism and cutting down valve operating noise to an absolute minimum — in fact, in operation one has to stand fairly close to the motor to hear it.

The cylinder head itself contains the valve operating mechanism of the overhead type, employing a unique oiling arrangement in that the rocker arms are mounted on a drilled shaft, through which a supply of oil is forced under pressure from the main lubricating system. This lubricates every part of the valve mechanism and then automatically drains the oil back through a strainer and into the oil sump.

The oil pan is a grey iron casting with a pressure feed oil pump located in a large oil sump just forward of the reverse gear housing.

This pump supplies oil to every bearing in the engine through a double strainer system and can be regulated for from five to fifteen pounds pressure per square inch.

The oil pump itself is of the steel gear bronze mounting type, direct driven and being constantly immersed in oil does away with wear and at the same time insures proper lubrication, provided there is half an inch of oil in the sump.

The crank shaft is a Wyman-Gordon forging nickel steel, drilled for pressure feed lubrication, finishing 2 inches in the main journals and connecting rod bearings. The crank shaft and connecting rod bearings are oversize and are of the bronze backed babbitt lined, removable type.

Pistons are made of a very fine grade of special grey iron, ground to a perfect fit and fitted with three piston rings, the bottom ring being of the oil collecting type.

Connecting rods are made of alloy steel drop forged and heat treated I beam section and are designed to transmit more than twice the amount of power the engine will actually develop at high speed.

The reverse gear is a special Paragon mounted between couplings and lubricated through hollow shaft direct from the main lubrication system of the engine.

The carbureter is a model A Schebler.

The motor weighs 850 pounds complete and is only 51½ inches long overall, 24½ inches high from shaft center to top of the valve cover and 18½ inches between foundation bolt centers.

Yard *and* Shop

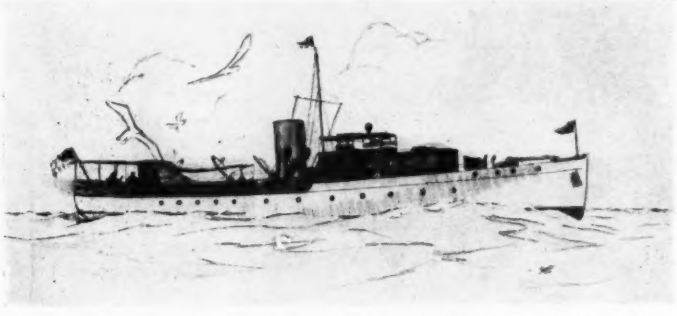
Notes of Interest to Both Owner and Manufacturer

Open New Florida Office

REALIZING the importance of being directly represented in Florida during the winter months, owing to the considerable yachting activity in Southern waters, Cox & Stevens, Naval Architects and Yacht Brokers, of New York, N. Y., have arranged to open a branch office at 326 N. E. First Street, Miami, Florida, where they will be directly represented by Thomas C. Landi, of their firm.

Cox & Stevens are prepared to render prompt and efficient service to their clients, who contemplate spending all or part of the winter season in Florida, as they will naturally be in very close touch with the yachting situation in the South.

An unusual picture showing a novel use for a marine engine. H. G. Mullan of Hudson, Canada, uses a model AA Red Wing engine for cutting ice. Mr. Mullan also uses a Red Wing in his boat and keeps the engines busy both summer and winter



The first Diesel yacht of the 1925 fleet which is now being built from Tams & King's designs for Commander J. K. L. Ross of Montreal. Winton Diesel engines will be used to drive the new craft

Red Wing Issues Catalog

A new 1925 catalog of the Red Wing Motor Company, describing in detail all of the new engines, is just off the press. This shows nine different sizes of four cycle engines from 4 to 90 h.p. The high speed Red Top 40-50 h.p. model and the two Big Chief sizes, 50-60 and 75-90 h.p. are shown in this catalog for the first time. A page is also devoted to Big Chief engines for twin screw installations, and cuts of engines are shown with entire manifold and valve sides of the engines, port and starboard. Interested readers can secure a copy of this new catalog by writing the Red Wing Motor Company, Red Wing, Minn.

New Edition of Winners

Winners, that attractive little booklet of the past season's racing events, both power and sail, will soon be out and more complete than ever. If you are not already on the permanent complimentary, mailing list of Edward Smith & Company, to receive this record each year, write them now as the edition is limited. Nineteen twenty-four will be the twenty-first edition and should be in the ship's library of every racing enthusiast. A post card to the above firm at 127 West Ave., Long Island City, N. Y., will bring you your copy.

Sensational Runabout at Show

One of the most interesting boats to be seen at the recent Motor Boat Show at Grand Central Palace was the new fast runabout shown by the Johnson Motor Company. This sensational little craft, 14 feet long and 50 inches wide, travels 25 miles an hour and carries from one to four passengers in luxurious comfort. The remarkable thing about it is its exceedingly moderate price, which places it within the reach of thousands of boat fans who have yearned for its speed and comfort but haven't been able to afford a boat costing from $2,500 to $10,000 — the cost of fast boats in the past Moreover this little marvel travels 10 miles on a gallon of gasoline. Its motor is a 16 h.p. outboard, the newest outboard motor of Johnson design. The power plant complete weighs only 98 pounds, and being outboard eliminates all grease and dirt in the boat. The entire outfit, boat, motor and all, is so light that four men can easily carry it. The low cost and economical operation of this outfit are sure to make it a popular one.

Race Driver to Compete at Miami

J. Bennett Hill, known to the automobile race fans as Benny, winner of the initial 250 mile race on the Culver City, Cal., board speedway, is the first driver to accept the invitation of Carl G. Fisher to compete in the Miami Regatta, March 20-21. Ten of the leading American drivers have been invited to drive as many boats in the three 12 mile heats, each day, (*Continued on page 92*)

A clever mechanic has adapted one of the small inboard Evinrude engines to drive a generating set on his yacht in Victoria, B. C. This makes a thoroughly practical outfit for this work

Rainbow IV. Owned by Commodore B. Greening of Hamilton, Ontario, Canada. Photo by M. Rosenfeld, N. Y.

Ten thousand miles—without a trace of wear!

RACING 10,000 miles through the water is a test that would make any ordinary varnish turn pale! But not Valspar.

Read what Ditchburn Boats, Ltd., the builders of Rainbow IV, have to say about the service and protection that Valspar alone can give.

> "Rainbow IV is finished all over with Valspar Varnish, including the bottom of the boat where it is desirable to have a smooth, hard and durable surface on the parts coming in contact with the water at high speed.
>
> "The boat came through the entire racing season in 100% condition, and although it travelled during the summer a distance of at least 10,000 miles, no apparent wear is noticeable on any of the surfaces finished with Valspar."

Small wonder that the finest boats everywhere are Valsparred. Owners, builders, racing men and boat fans know that for protection against wind and weather, salt spray, grease and oil, the best all-round varnish is Valspar.

This coupon is worth 20c to $1.60

VALENTINE'S
VALSPAR
The Varnish That Won't Turn White

VALENTINE & COMPANY *M. B. 2-25*
460 Fourth Ave., New York

I enclose dealer's name and stamps—20c for each 40c sample can checked at right. (Only one sample of each product supplied at this special price. Write plainly.)
Valspar Instruction Book with Color Charts, 15c extra.

Dealer's Name.....
Dealer's Address.....
Your Name.....
Address..... City.....

- Clear Valspar . . ☐
- Valspar Bronze Bottom Paint ☐
- Aluminum Paint . ☐
- Gold Paint . . . . ☐
- Yacht White . . ☐
- Yacht Black . . ☐
- Valspar-Enamel . ☐
- Choose 1 Color . . . . .
- Valspar-Stain . . ☐
- Choose 1 Color . . . . .
- *Valspar Book* ☐

Advertising Index will be found on page 142

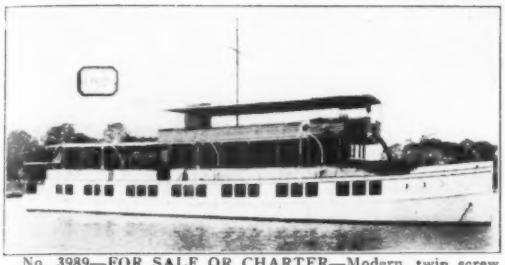
COX & STEVENS

YACHT BROKERS — MARINE INSURANCE — **NAVAL ARCHITECTS**

For Immediate Delivery in Florida

Our direct representative in Florida, prepared to give clients careful personal attention, can be reached promptly through us. A few of the available craft in Florida are shown here.

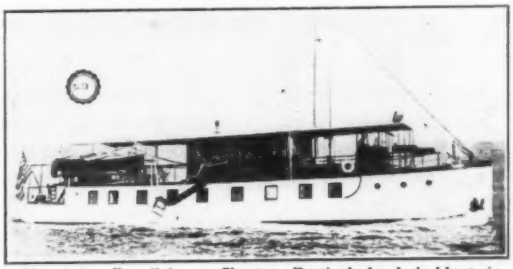
What are your requirements?



No. 3989—FOR SALE OR CHARTER—Modern, twin screw, motor houseboat; 96 x 21 x 3.9 ft. Built 1920. Speed 11 miles. Commodious accommodation includes extremely large combined living room and dining saloon on deck; five staterooms and four bath rooms. Fitted with all conveniences; handsomely finished and furnished. COX & STEVENS, 25 BROADWAY, NEW YORK.

No. 3000—FOR SALE OR CHARTER—Commodious twin screw, motor houseboat; 100 x 18 x 3.6 ft. Speed 10-11 miles; Winton Motors. Splendid accommodation includes dining saloon and lounge room on deck; six staterooms (including five double) and three bath rooms below forward. All conveniences. COX & STEVENS, 25 BROADWAY, NEW YORK.

No. 4400—FOR SALE OR CHARTER—Practically new, 68 ft. motor houseboat. New 1923. Speed 10 miles. Accommodation includes deck dining saloon, three staterooms and two bath rooms. An exceptionally comfortable cruiser, and excellent sea boat. COX & STEVENS, 25 BROADWAY, NEW YORK.



No. 3151—For Sale or Charter—Particularly desirable twin-screw houseboat; 77 x 17.6 x 3 ft. Speed 11 miles; two 6 cylinder 60-70 H.P. Standard Motors new 1919. Large deck-house containing social hall; main saloon, two double and two single staterooms, two baths and toilet rooms, etc. Handsomely finished and furnished. Cox & Stevens, 25 Broadway, New York.

No. 4421—FOR SALE—Modern, twin screw, Diesel motor yacht; 98 x 17 x 5 ft. Built 1922. Construction extra heavy. Speed 10 to 11 miles. Fitted with all conveniences, including ice machine, etc. All owner's and guests' quarters on deck, including saloon, two double staterooms and two bathrooms. Extremely economical to operate and has proven remarkably able. Now in commission. Only offered as owner is building larger Diesel yacht similar type. For further particulars apply to COX & STEVENS, 25 BROADWAY NEW YORK.

No. 4363—For Charter—Twin screw motor houseboat, 85' x 18' x 3.3' Winton motors. Four staterooms, two baths and three toilets. Deckhouse 25' long, containing combined dining saloon and living room. Luxuriously fitted and furnished. All conveniences. Cox & Stevens, 25 Broadway, New York.

No. 883—FOR SALE AT BARGAIN OR CHARTER—Able, twin-screw 95-foot motor yacht. Speed 12-13 miles; two 6-cylinder, 125 H.P. Winton motors, new 1920. Dining saloon in deckhouse forward; below two double staterooms, main saloon, two bath and toilet rooms, etc. Further particulars from Cox & Stevens, 25 Broadway, New York.

No. 2630—For Sale or Charter—Now in Florida, in commission—Especially attractive, fast, roomy, twin screw, cruising motor yacht; 81 ft. 6 in. overall, 14 ft. 6 in. beam, 3 ft. 6 in. draft. Speed 17-18 miles, exterior joiner work of mahogany throughout. Dining saloon in forward deckhouse; aft are two double and one single stateroom, bathroom and additional toilet room. COX & STEVENS, 25 BROADWAY, NEW YORK.

Advertising Index will be found on page 142

Advertising Index will be found on page 142

Advertising Index will be found on page 142

FRANK BOWNE JONES

Telephone Whitehall 1170

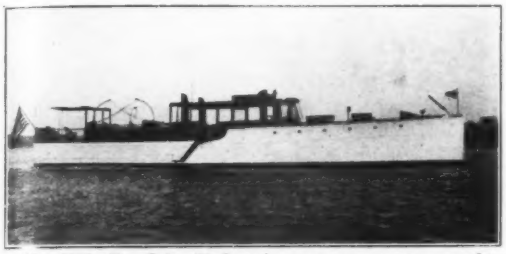
YACHT AGENT and SHIP BROKER

Cable Address "Windward", N. Y.

Cunard Building, 25 Broadway, New York

OFFICE No. 1051

Sales and Charters — Naval Architecture — Marine Insurance

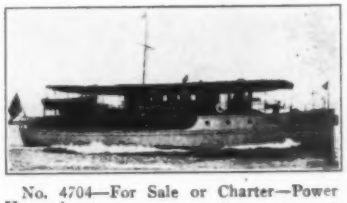


No. 3898—For Sale—76 ft. twin screw express power yacht—built by Lawley—Sterling Motors—20 miles speed—excellent accommodations. FRANK BOWNE JONES, Yacht Agent, Broadway, New York.

No. 7560—For Sale or Charter—115 ft. Modern Steel Steam Yacht—Express type—Oil burning—Low price. FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.

No. 1021—For Sale—Mathis 52 ft. Power House Yacht—Deckhouse—1 double and 1 single stateroom and saloon below. FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.

No. 1881—For Sale—85 ft. Combination Cruiser-Houseboat — Best build — Twin screw—3½ ft. draft—Ready for Florida service—Price away below value. FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.



No. 4704—For Sale or Charter—Power House Yacht—67 ft. long—New in [illegible] —Best design and build—Practically new, FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.

HENRY H. JENNINGS HERMAN JAGLE

H. H. JENNINGS COMPANY

YACHT and SHIP BROKERS

Surveying

Marine Insurance

Telephones Beekman 5456 and 5457

Cable Address Yachtbroco, Newyork

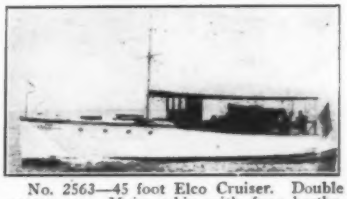
TRIBUNE BUILDING

154 Nassau Street New York City

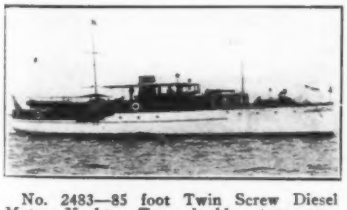
Our 25 Years' Experience and Our Knowledge of the Yachts We Offer, Insure Satisfaction to Clients

No. 2361—For charter in Florida waters. 54 foot twin screw Express Cruiser. Double stateroom, four berths in main cabin. Two toilet rooms, two berths and toilet for crew. Two 225 H.P. Sterling motors. Speed 25 miles. Electric lights, etc. High class outfit. Charter rate attractive.

No. 4517—Sale or charter. Twin screw Houseboat, 70' x 16' 6" x 3' 6". Three double and one single stateroom. Large deckhouse containing dining and living room. Two toilets and bath. Two 70-80 H.P. motors. Speed 12-14 miles. Hot water heat. Electric lights, etc.



No. 2563—45 foot Elco Cruiser. Double stateroom. Main cabin with four berths. Two toilet rooms. Berth in engine room for man. Galley. Electric lights, etc. 42 H.P. Elco motor. Speed 11-12 miles.



No. 2483—85 foot Twin Screw Diesel Motor Yacht. Two double staterooms, dining saloon, large galley, two toilets and bath. Hot water heat. Electric lights. Up to date in every respect. Speed 11-12 knots.

No. 2584—65 ft. Twin screw power yacht. Two double staterooms, dining saloon and roomy deckhouse. Two toilets and bath. Two Sterling Motors. Speed 13-14 miles. Electric light. Hot water heat, etc. Splendid proposition.

No. 4531—Auxiliary Keel Schooner. Alden design. 42' 3" x 11' 3" x 6' 1". Built 1924. Double stateroom and saloon, etc. 40 H.P. Scripps motor. Speed 7 miles. Electric lights, etc. Smart sailer and wonderful seaboat.

Advertising Index will be found on page 152

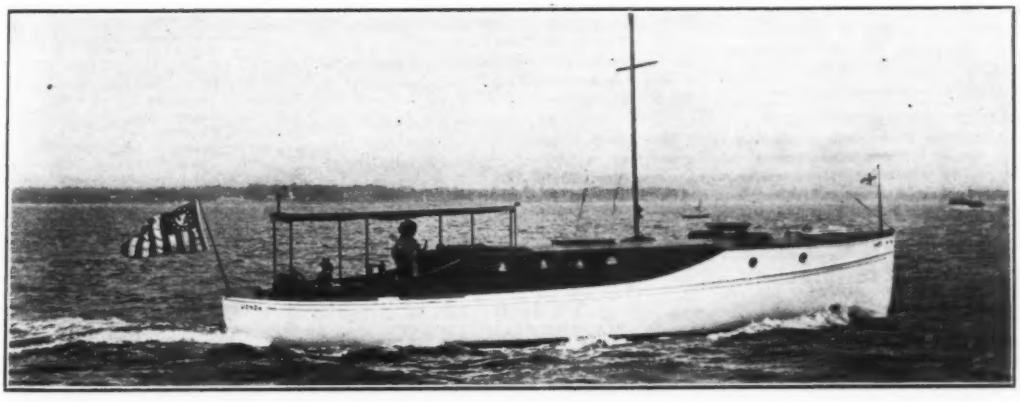
For Sale — SPEED BOAT

Hacker V-Bottom Type — Mahogany Constructed

The man who wants thrill that only speed can give and the satisfaction of owning a boat that is ever ready to go is the man who will appreciate the exceptional value of this speedster; built by the Red Bank Yacht Works after designs by John Hacker. The boat is a little more than one year old, seldom used, and is practically new—looks and is as good as the day it was launched. Thoroughly seaworthy and fully equipped. A Sterling Sea Gull 150 H. P. engine gives her a speed of 35 miles an hour. The engine is mechanically perfect. Boat can be seen, inspected and delivered immediately. Price $4,000, originally cost $7,100. Owner buying larger boat. Address: Box 132, MoToR BoatinG.

FOR SALE

HANDSOME FORTY-TWO FT. CRUISER



In perfect condition and one of the most desirable cruiser offerings of the season.

This 42'x10'6" cruiser built by F. S. Nock has had very excellent care and is practically as good as new. Designed for rough water and is salt water equipped. The cabin is large and has a main salon, and state room, two single and two double berths, sleeping six people; galley, sink, lavatory and ice box, etc. The cockpit is spacious and is protected by a watertight canopy. The powerplant is a 3 cylinder 24-27 H. P. Standard, is mechanically perfect and gives the boat a speed of 9 miles per hour. No vibration. Cruising radius 270 miles without refueling. Owner buying new boat, will accept any reasonable offer to effect quick sale. Boat is ready for immediate commission. May be seen by appointment in New York waters. Box 130, MoToR BoatinG.

THE MOTOR BOATING MARKET PLACE

The rate for "For Sale" and "Want" advertisements is 8 cents per word, minimum $2.00. If an illustration is used, the charge is as follows, which includes the making of the cut:

Cut one inch deep, two inches wide.....	$ 9
Cut 1½ inches deep, three inches wide.....	$12
Cut 2¼ inches deep, four inches wide.....	$20
Cut 2¼ inches deep, six inches wide.....	$25

Classified advertisements set entirely in small light face type. No extra charge for capitals. Bold face type used at display rate, $12 per inch, single column

New advertisements can be accepted up to twelfth of month for following issues.

Opportunities for the Motor Boatman

Before you buy or before you sell examine the exceptional buying and selling opportunities under this heading. They comprise the best offers of the month. Please mention MoToR BoatinG.

MoToR BoatinG, 119 West 40th St., New York

Day Cruiser, practically new, 33 ft. over all, mahogany finish, mahogany and pine inlaid decks, new Red Wing motor 32-40 H.P., speed 12 miles. Pine Planking; Bargain price $1,500. Allan Smith Co., 803-17 Forest Ave., Portland, Me.

Speed Boat, under construction, brand new mahogany finished, length 18 ft., stepless, 100 H.P. Curtis engine, guaranteed speed 38 miles. Price complete delivered $1,200. Allan Smith Co., 803-17 Forest Ave., Portland Me.

GOSHEN MARINE ENGINE——30 H.P., 7½ x 8, 2 cyl., 2 cycle, H. D., Paragon reverse attached, just overhauled, ready to run. Bargain at $210. O. V. Ballentine, 11 Fatherland st., Nashville, Tenn.

For Sale:—36-72 H. P. Pierce-Arrow motor 4½ x4 15-16 6 cylinder 4 cycle fully converted for marine use; flywheel forward—Delco starter and Generator—Atwater Kent and Bosch Magneto double ignition—force feed lubrication through crankshaft—seven big main crankshaft bearings —reverse gear—weight 980 pounds—cost about $1,200 00 will take $360.00 F.O.B. cars—or will exchange for good four cycle motor weighing not over 600 pounds suitable for twenty foot runabout. Address EMB 403 E. Main Street, El Paso, Texas.

FOR SALE—Two 125 H. P. Model W-5 8 x 11 Winton gasoline marine engines in excellent condition—used less than two years—price cheap. HARRIS HARDWARE CO. Washington, North Carolina.

FOR SALE—Runabout Panhard, Mississippi Valley Champion 1921. Electric Starter, etc. Ready to run. Also motors all kinds 25 to 40 Horsepower, including Erd 30 Horsepower. F. T. Holiday, Indianapolis, Indiana.

YACHT CLUB MEMBERSHIPS

The Hudson River Yacht Club is prepared to accept new members under advantageous conditions. Attractive clubhouse, restricted membership, good anchorage, most convenient location. Commodore E. Spindler, Hudson River Yacht Club, West 92nd Street, New York City.

TRIMOUNT WHISTLE BLOWER OUTFITS
Friction contact with engine flywheel.
3 sizes.

TRIMOUNT ROTARY HAND BILGE PUMPS
All bronze composition. Suction lift 6 to 20 feet.
3 sizes.

A tremendous success—a high-speed, bronze Power Pump for $15.00

TRIMOUNT ROTARY POWER CO.
294 Whiting Ave., East Dedham, Mass.

Marine—automobile—tractor and stationary engines made good as new for power-performance and economy at reasonable cost, thru having cyls. reground and refitted with new pistons and rings in our specially equipped shop for this class of work. Tell us about your engine and get our interesting introductory offer. Badger Motor Company, Milwaukee, Wis.

FOR SALE—25′ Sea Sled Sedan. Built 1924, of mahogany, seats 10, speed 38 m.p.h. 2-100 H.P. Hall Scott engines, boat and engines new. Photographs, price and complete description to those interested. Box 127, care of MoTor BoatinG.

FOR SALE—1923 Universal 4 cyl. 4 cycle, 9-12 H.P. motor, like new—reverse gear, rear starter, Atwater Kent ignition with coil, $190. F. O. B. Jamestown, N. Y. Address, David Folsom, 301 Superior Bldg., Cleveland, Ohio.

Best Winter Bargain—40 ft. Bridge Deck Cruiser, 6 cyl. Elco 50 H. P. electric starter, bridge control, 32 volt light plant. Davis Dink 8 ft. mahogany, speed 12 miles. Cabins oak, complete in every detail to close estate. First $2500 takes it. G. Naumann, 125 W. Jefferson Ave., Detroit, Mich.

Bargains—Rebuilt marine engines. One to 6-cylinders. Motor and row-boats we have taken in trade. Send for list. Dept. "D", Everett Hunter Boat Co., McHenry, Illinois.

Notice — Six-volt lighting generators complete with correct diameter pulley and base mounted for flywheel drive — fifteen dollars. Write for prices on other equipment. H. Sprang, 460 West Peachtree Street, Atlanta, Ga.

---

30 M P H Mullins Steel Runabout, powered with 3 cyl. Pierce Budd Motor, very fast and graceful, a crackerjack little outfit for someone at a Bargain price of $450.00. Chas. Ciconet, 127 N. 4th St., Louisville, Ky.

New Buffalo motor. Used one trip and guaranteed as perfect as when it left factory. Cruiser type, 25-30 H.P. Unit power plant with clutch, dual ignition. Cost $1,100. Price 5550. B. Frank Williams, Alsace Bldg., Norfolk, Virginia.

FOR SALE

For Sale—1924 ELCO CRUISETTE used three months a total of seventy-one hours. Complete with catalog equipment and will be painted and put in the water for $4,000. Owner is buying 1925 model of same boat with high powered engine for extra speed. T. F. Wilson, 1200 Eddy Street, Providence, R. I.

FOR SALE—Hacker Runabout 25 x 6 Boat. Well constructed, beautifully finished, cedar planked and mahogany trimmed. Engine is a new 200 H.P. Marine Hispano Suiza, with starter, generator, etc. The boat was launched August 4th, 1924, and only used four times. Plenty of speed and very dry. Will sell for less than half of the original cost. Charles E. Furnans, 1132 Purchase Street, New Bedford, Mass.

Navigator wants position with yacht owner, has ocean and motor boat licenses with years of experience, also chauffeur's experience. Best reference. Norse 36 MoToR BoatinG.

For Sale—Speedway Engine, 6 cyl., 8½" bore, 10" stroke, 140-160 H.P. at 400 to 450 R. P. M.—Excellent condition—bargain. H. Chyrstal, 150 Pioneer St., Brooklyn, N. Y.

For Sale: New Scripps F4, high speed, 40x60 H. P., to be shipped from Scripps plant, $650. F. O. B. Detroit. G. P. Case, 710 Ann St., Parkersburg, W. Va.

FOR SALE: 20′ HICKMAN SEA SLED, SCRIPPS F4 MOTOR, SPEED 30 MILES. WRITE FOR FULL PARTICULARS. E. P. CULVER, PRINCETON, N. J.

Runabout 30x5′6″ light constructions model VM. 25 H.P. 4 x 4 Gray Motor (run less than 400 miles) speed 15 miles, hull and motor perfect. $500—R. P. Wirths, The Kanatenah, Utica, N. Y.

CRUISER, roomy, glass cabin, about 35 ft. over all, 9.9 beam, draught 2.9, 20 H.P. Bridgeport engine, 4 bunks, toilet, electric lights, one man control; in excellent condition; bargain at $800; must dispose of promptly. V. M. Carolin, Sayville, L. I.

FOUR CYLINDER FOUR CYCLE WITH REVERSE GEARS: Clifton 8½ x 11 $750.00, Murray & Tregurtha 7 x 11 $450.00, Lozier 6 x 8 $385.00, Doman 5 x 6 $275.00, Kermath 4 x 4 $375.00, Kermath 3¾ x 4 $275.00, Sterling 4¾ x 5½ $425.00, Wisconsin 3¾ x 5 $275.00, Universal 2⅝ x 4 $175.00, New Erd 4 x 6 industrial motors $275.00, Doman 4¾ x 6 industrial motors $285.00 — Van Blerck 8 cyl. 5½ x 6½ $550.00, Doman 14 H.P. 2 cyl. and gear $225.00, Buffalo 2 cyl. 4½ x 5 and gear $125.00, Frisbie 1 cyl. 6 x 6 $145.00.

TWO CYCLE ENGINES: 21 H.P. three cyl. Model T. Gray $105.00, 15 H.P. Waterman 2¾ x 4 four cyl. $115.00, Roberts 2 cyl. 4½ x 5 $75.00, Pierce-Bud 3 cyl. 4 x 4 $245.00, Amphion 2 cyl. 2⅝ x 4 and clutch $75.00. 4 H.P. Gray 1 cyl. $45.00. Outboard and small inboard motors $30.00 to $50.00.

——New High Tension Magnetos, $22.50——

BADGER MOTOR COMPANY
Milwaukee, Wis.

GUARANTEED REBUILT MARINE ENGINES

We are also authorized distributors for the following new engines:

Scripps	**Niagara**	**W-S-M**	**Kahlenberg Oil Engine**
Hall-Scott	**Lockwood-Ash**	**Automatic**	**Johnson Outboard Motor**

Write today for latest list and prices

MARINE ENGINE COMPANY OF PHILADELPHIA

MACHINERY EXHIBIT, BOURSE BUILDING, PHILADELPHIA, PA.

Advertising Index will be found on page 142

MoToR BoatinG's

MARKET PLACE

Brings Buyer and Seller Together

AN advertisement in MoToR BoatinG's Market Place will put you in touch with a buyer for your boat quickly and economically. The proof of the result pulling power of MoToR BoatinG's classified advertisements is in the fact that more advertising appears in MoToR BoatinG than in any other boating publication. Many yacht brokers use MoToR BoatinG exclusively. You will never know the best price you can get for your boat until you offer it in the open market. You can reach the biggest interested market through MoToR BoatinG—the boating publication with the largest circulation.

The rate for "For Sale" and "Want" advertisements is 8 cents per word, minimum $2.00. If an illustration is used, the charge is as follows, which includes the making of the cut:

Cut 1 inch deep, two inches wide	$ 9
Cut 1½ inches deep, three inches wide	$12
Cut 2¼ inches deep, four inches wide	$20
Cut 2¼ inches deep, six inches wide	$25

Classified advertisements set entirely in small light face type. No extra charge for capitals. Bold face type used at display rate, $12 per inch, single column.

Advertisements for March issue can be accepted up to February 11th

Mail yours today

MoToR BoatinG

119 W. 40th Street, New York City

SPRING LISTING.

81′ x 14′ x 3′ 7″ Bridge Deck Cruiser. (2) 200 H. P. Van Blerck Engines.
72′ x 12′ 6″ x 4′ Raised Deck Cruiser. (2) 150 H.P. Winton Engines.
70′ x 14′ x 3′ 6″ Bridge Deck Cruiser. (2) 150 H.P. Standard Engines.
67′ 6″ x 11′ 10″ x 4′ 6″ Bridge Deck Cruiser. 85 H.P. Sterling Engine.
65′ x 14′ x 4′ 7″ Bridge Deck Cruiser. 80 H.P. Winton Engine.
60′ x 15′ 7″ x 4′ 6″ Raised Deck Cruiser. 75 H.P. Murray & Tregurtha Engine.
58′ 6″ x 12′ x 4′ Bridge Deck Cruiser. 90 H.P. Murray & Tregurtha Engine.
52′ 9″ x 8′ 6″ x 3′ 3″ Bridge Deck Cruiser. 40 H.P. Lathrop Engine.
48′ 9″ x 12′ x 3′ Bridge Deck Cruiser. (2) 24 H.P. Palmer Engines.
45′ x 10′ 6″ x 3′ Bridge Deck Cruiser. 45 H.P. Fay & Bowen Engine. Built 1922.
42′ 6″ x 10′ 6″ x 3′ Raised Deck Cruiser. 45 H.P. Lathrop Engine.
41′ 6″ x 9′ 6″ x 3′ 3″ Bridge Deck Cruiser. 85 H.P. Van Blerck Engine. Built 1921.
41′ x 10′ x 3′ 6″ Raised Deck Cruiser. 85 H.P. Sterling Engine.
40′ x 12′ x 3′ Raised Deck Cruiser. 30 H.P. Vulcan Engine.
40′ x 9′ x 3′ 6″ Raised Deck Cruiser. (2) 20 H.P. Kermath Engines.
40′ x 8′ 9″ x 3′ 9″ Raised Deck Cruiser. 60 H.P. Pierce-Arrow Engine.
38′ x 11′ 6″ x 3′ 6″ Raised Deck Cruiser. 40 H.P. Engine.
38′ x 10′ x 3′ 3″ Bridge Deck Cruiser. 24 H.P. Palmer Engine.
38′ 6″ x 10′ x 2′ 6″ Bridge Deck Cruiser. 45 H.P. Scripps Engine.
38′ x 9′ 6″ x 3′ Bridge Deck Cruiser. (2) 20 H.P. Engines.
37′ 2″ x 8′ 6″ x 3′ Raised Deck Cruiser. 35 H.P. Engine.
37′ x 9′ 6″ x 3′ Raised Deck Cruiser. 25 H.P. Pierce-Arrow Engine.
37′ x 10′ x 3′ 6″ Raised Deck Cruiser. 40 H.P. Engine.
36′ x 9′ x 2′ 6″ Raised Deck Cruiser. 150 H.P. Speedway Engine.
36′ x 9′ 6″ x 3′ 6″ Raised Deck Cruiser. 30 H.P. Keystone Engine.
33′ x 9′ x 3′ 3″ Trunk Cabin Cruiser. 45 H.P. Scripps Engine.
30′ x 10′ 6″ x 3′ Raised Deck Cruiser. 30 H.P. Keystone Engine.

ELCO CRUISERS.

56′ x 11′ x 4′ Elco Cruiser. 45 H.P. Sterling.
50′ 10″ x 10′ 7″ x 3′ 3″ Elco Cruiser. 150 H.P. Sterling.
45′ 10″ x 10′ 7″ x 3′ 4″ Elco Cruiser. 37 H.P. Standard.
32′ x 8′ 6″ x 2′ 6″ Elco Cruiser. 30 H.P. Wisconsin.

EXPRESS CRUISERS.

66′ x 11′ 4″ x 3′ 2″ Express Cruiser. (2) 200 H.P. Van Blerck Engines.
57′ x 11′ x 4′ Inclosed Bridge Deck. 125 H.P. Van Blerck Engine.
55′ x 11′ x 2′ 9″ Hand V-bottom. (2) 150 H.P. Van Blerck Engines.
54′ x 11′ x 3′ 4″ Great Lakes. (2) 225 H.P. Sterling Engines.
52′ x 11′ 4″ x 3′ 4″ Seabury Cruiser. (2) 135 H.P. Speedway Engines.
48′ x 10′ 6″ x 3′ Express Cruiser. (2) 200 H.P. Van Blerck Engines.
45′ x 10′ 4″ x 2′ 9″ Rochester Cruiser. 85 H.P. Sterling Engine.
42′ x 9′ x 2′ 11″ Lawley Cruiser. 300 H.P. Sterling Engine.
36′ x 8′ 2″ x 2′ 11″ Express Cruiser. 100 H.P. Hall-Scott Marine Engine.

HOUSE BOATS.

73′ x 16′ 6″ x 3′ 6″ N. Y. Y. L. & Eng. Co., (2) 30 H.P. 20th Century Engines.
70′ x 17′ 3″ x 3′ House Boat. (2) 30 H.P. Palmers.
65′ x 14′ x 4′ Matthews Houseboat. (2) 60 H.P. Standard Engines.
65′ x 14′ x 4′ Matthews Houseboat. (2) 150 H.P. Sterling Engines.
60′ x 14′ x 2′ 6″ House Boat. (2) 75 H.P. Standard Engines.
60′ 8″ x 16′ 2″ x 3′ 2″ Mathis Houseboat. 75 H.P. Standard Engine.
55′ x 15′ x 3′ 1924 House Boat (2) 40 H.P. Doman Engines.
52′ x 14′ x 3′ 6″ Mathis Houseboat. 37 H.P. Standard Engine.
50′ x 14′ 6″ x 3′ House Boat. 50 H. P. 20th Century Engine.

AUXILIARIES.

75′ x 18′ x 4′ C. B. Aux. Schooner. 40 H.P. J. V. B. Engine.
63′ 6″ x 15′ 6″ x 4′ C. B. Aux. Yawl. 40 H.P. Scripps Engine
47′ x 14′ 4″ x 3′ 6″ Marconi Aux. Schooner. 37 H.P. Standare
44′ x 13′ x 5′ Keel Yawl. 12 H.P. Palmer Engine.
43′ x 11′ 6″ x 3′ 10″ C. B. Aux. Yawl (Crosby). 16 H.P. Standard Engine.
40′ 10″ x 14′ x 5′ 6″ Aux. Keel Schooner. 12 H.P. Lathrop Engine.
40′ x 10′ x 3′ Chesapeake Bugeye. 7 H.P. Regal Engine.
39′ 6″ x 12′ x 3′ 6″ C. B. Aux. Yawl (Crosby). 5 H.P. Mianus Engine.
35′ x 12′ 6″ x 3′ 6″ C. B. Yawl. 12 H.P. Beaver Engine.
32′ 8″ x 12′ 5″ x 5′ Auxiliary Yawl. 18 H.P. Gray Engine.
26′ 5″ x 9′ 6″ x 3′ 3″ V-Bottom Schooner. No Engine.

And many other type yachts and commercial boats.

YACHTMEN'S SERVICE AGENCY
1233 Real Estate Trust Building **Phone: Walnut 4830**
Philadelphia, Pa.

R. W. ZUNDEL CO. INC.

ZUNDEL

MARINE HARDWARE

Everything for the motor boat. We always carry a large and complete stock and can make immediate shipments anywhere.

Blood Universal Joints

Oberdorfer Pumps
Valspar Varnish
Kauri Varnish
Tarr & Wonson's, Non Fouling Paints
Blood Universal Joints
Half-Mile-Ray Searchlights
Portlights

Get our latest catalog and prices.

R. W. ZUNDEL COMPANY, INC., 1 Block from So. Ferry
47 Whithall St.—Phone Bowling Green 9157—New York, N. Y.

BOAT SUPPLIES

B. Schellenberg & Sons

EVERYTHING FOR THE PERSON OF THE YACHTSMAN, HIS OFFICERS AND HIS CREW

Clubs, yacht owners, commercial boat owners should take advantage of our almost 70 years' experience in outfitting the mariner, both inland and deep sea.

Crews and Club attendants furnished without Charge

B. SCHELLENBERG & SONS
Established in 1857
99 to 105 Myrtle Ave.
(Near Bridge St., Brooklyn, N. Y.
Telephone Cumberland 0804

The Kaufman

SILVERBEAM

A powerful electric searchlight, made especially for marine use. All brass, accurately machined and heavily nickel-plated. Thoroughly rust-proof.

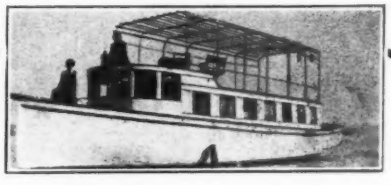
Operates on 6 volt storage battery, using 30 candle-power nitrogen bulb. Projects the most powerful beam known for a light of its size. Indispensable for spotting buoys, landings, piers and anchorages as well as avoiding driftwood and rocks.

Swings in any direction or complete circle. Instantly detached for use as a work light. Also furnished with cabin control.

Prices.....$6.00 to $15.00

Sold by the best dealers everywhere. Write for Catalog No. 17

CHAS. KAUFMAN & SONS, Inc.
Santa Ana, California



Cruising Houseboat, staunch, seaworthy and able. 45′ x 14′, with new 40 H.P. automatic motor and generator. Spring beds, galley, running water. Fully equipped. A perfect boat. Complete in every detail. A comfortable and spacious home. $3,000.

OTHER BOATS VARIOUS SIZES—ATTRACTIVE PRICES.
Time payments arranged in New York and vicinity.
J. WORTSMANN, 154 Nassau St. New York

Advertising Index will be found on page 142

Use Large Chain for Safety

(*Continued from page* 43)

Regardless of the type of mooring, whether mushroom type, or a large concrete block or drilled rock, the connection for the chain should be of liberal dimensions. An eye bolt forged from three quarter inch iron stock is none too large. This should be fastened to the mooring securely and have the end riveted after screwing the nut on. This will prevent the nut from unscrewing.

Fastened to the eye bolt should be a swivel and to this swivel the permanent mooring chain. The swivel and shackle should be of the same size stock as the eye bolt. The chain should be of ¾ inch stock with links about six inches long. It should be just long enough to reach from the mooring block to the surface of the water at low tide. See Fig. 1. To some a ¾ inch chain may seem to be so large as to be ridiculous, but remember that it must stand rust and wear for a number of years and will not be in a position to be inspected, after the mooring is placed. If the boat is moored in any reasonable depth of water only a few feet of this large chain will be used.

To this chain is shackled or fastened with a cold shut a sufficient length of light chain to give the boat the right scope. This is usually figured at about three times the depth of the water, less the length of the large chain. To the small chain is attached the mooring buoy which is usually arranged to be taken aboard and a bight of the chain slipped over the mooring bitts.

The small chain should be galvanized and the large chain given a coat of red lead or tarred before placing the mooring. With the boat at the mooring you will find that in ordinary weather the large chain will rest on the bottom as in Figure 2. In rough weather its weight will act as a spring and prevent snapping the chain when the boat rises on a wave. See Fig. 3.

When the boat is laid up for the winter the chain is raised until the large part comes to the surface of the water. The small chain is then unshackled and taken ashore while a float or log is attched to the large chain. In shallow water the large chain is sometimes allowed to sink and is recovered in the spring with a long pike pole, at low water. In this case cross bearings should be taken from the mooring to prominent objects on the shore, to relocate the mooring.

The advantage of this type of mooring is that the large chain will last for years without any attention and it has a great value as a spring in preventing jerking at the mooring. Also, the small chain being removed every fall, may be inspected and regalvanized or replaced as necessary

By having all winter to overhaul your buoy, you will have that much more time to use on your boat in spring where time is generally at a premium.

J. L. P. Bellingham, Washington.

Running Light Indicator

(*Continued from page* 42)

ground the lever to same side. From the insulated anvil lead a wire to the indicator light or annunciator drop, and connect from the other side of the indicator to the positive side of the line. There must be a switch in the indicator circuit to prevent the tell tale light from lighting when the running lights are off. In the wiring diagram the circuits are so arranged that the switch which controls the lights also controls the indicator circuits. In connecting several relays, the positive wire from the switch may be led to one side of each indicator lamp or annunciator drop and the negative wire from the relay to the other side. Place the indicator lamps in a row, and label them, or the port and starboard indicators may be stained their respective colors.

If you care to make the entire outfit, it can be made small enough to be placed inside the body of any class II or III light. Located inside the light body the mechanism is protected from injury, and as most electric running lights are left in position all season the extra wire to the indicator will cause no trouble. Buy or make a pair of low resistance magnets and mount them on an insulated base of hard rubber or bakelite. Set up a free moving armature and provide a stop so that the armature will clear the magnet cores by the thickness of a post card. The armature must be of soft iron which will not retain magnetism after the circuit is broken. Fit a light adjustable tension coil spring to hold the armature away from the magnets when no current is passing through them, and fit a limit stop which is also the relay contact. This is similar to the telegraph sounder without the anvil. The anvil and part of the lever could be removed from a sounder and a contact and stop provided.

The instruments shown are suitable for use with one lamp only when the running lights are wired in multiple, but where the running lights can be connected in series and low voltage lamps used, one instrument in the series circuit will indicate as soon as a lamp burns out and all lights will go out at once. By connecting the instrument in the anchor light circuit and placing an extra lamp in the light, the circuit to the extra lamp will be automatically made should the regular lamp burn out, and the lighting will not be interrupted. W. B. M., Newburgh, N. Y.

Boats Building Everywhere for Gold Cup Regatta

(*Continued from page* 44)

course be privately owned or a public park, the fact remains that to view a motor boat regatta held anywhere in the Metropolitan District, one must expect to view the race from afloat with the possible exception of the Hudson River where spectator craft will neither come to witness a race nor anchor for very obvious reasons.

One should also remember that big regattas cost a great deal of money and must be financed by the yacht clubs, the yachtsmen and the owners of racing craft. Neither the public nor the trade contributes a cent toward motor boat racing. Therefore, we believe the selection of Manhasset Bay as the course for the Gold Cup Races is the only sane and justifiable one.

"On to Manhasset Bay" Races

An invitation is extended to all yacht clubs to schedule races and cruises to Manhasset Bay from their home ports. A prize will be offered to each yacht club that will schedule a race from their club to Manhasset Bay, to finish not later than sundown, Friday, August 28. Races should be run and boats handicapped according to A. P. B. A. rules. Further particulars may be had from the Race Committee.

How to Get to Manhasset Bay

Manhasset Bay is located at the western end of Long Island Sound, near the entrance to the East River and twenty-two miles from the Battery, New York City. It is on the north shore of Long Island, directly opposite City Island and New Rochelle.

Manhasset Bay is about three miles long and about two miles wide at its widest part. Plum Point, at the entrance makes the Bay almost land locked and thus ideal water for high speed motor boat racing. There is deep water everywhere in the bay and no rocks. The bottom is mud and sand and therefore a good holding bottom. Except at the entrance to the Bay there is little or no tidal current although the Bay has a rise and fall of tide of about seven feet.

The town of Port Washington is located on the east bank of Manhasset Bay. Port Washington is reached via the Long Island Railroad from Pennsylvania Station, New York City by through electric trains leaving New York at frequent intervals. The running time is about 45 minutes. Port Washington may also be reached over excellent automobile roads via 59th Street, Manhattan and the Queensboro Bridge. The distance is twenty miles.

Three fine yacht clubs—the Manhasset Bay, Knickerbocker and Port Washington are located at Port Washington. All of these clubs have facilities for taking care of visiting yachtsmen.

Gasoline may be had from several stations located in the bay and supplies and provisions are easily obtainable from stores located close to the Public Dock at Port Washington.

Shipyard and marine repair facilities may be found in great abundance both at Port Washington and at City Island, two miles distance.

The details of each race are as follows:

Event No. 1

James Craig Trophy Race for Cruisers

Date: Aug. 26–27, 1925.
Course: Philadelphia, Pa. to Manhasset Bay.
Distance: About 250 miles.

Open to "Cruisers" (under 8½ knots speed in race) and "Fast Cruisers" (speed 8½–12 knots in race) of not less than thirty nor more than sixty feet water line length, powered with American marine motors, handicapped according to 1925 American Power Boat Association racing rules; winner to hold James Craig Perpetual Trophy for one year or until next race. Trophy now held by Nueva of Shelter Island Yacht Club (See complete Deed of Gift governing James Craig Trophy, pages 130–131 etc., 1924 A. P. B. A. rule book). The starting of this race will be handled by the Riverside Yacht Club, J. F. Pollard, Secretary, No. 1021 N. 64th St., Philadelphia, Pa.

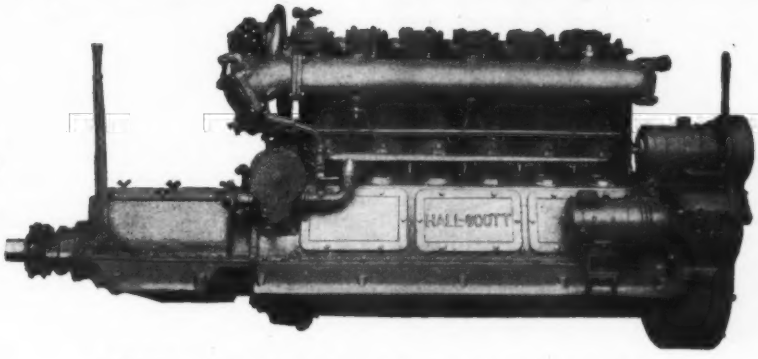
Entries: Close 10 days before race.

(*Continued on page* 66)

Advertising Index will be found on page 142

HALL-SCOTT

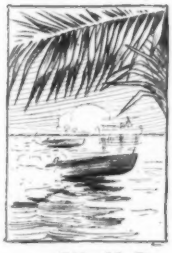
HSM SERIES
(Fageol Type)
Bore 4¼" Stroke 5½"
Four Cylinders 50-70 H.P.
Weight 1290 lbs.
Six Cylinders, 75-100 H.P.
Weight 1590 lbs.



LM SERIES
Liberty Type)
Bore 5" Stroke 7"
Four Cylinders, 125 H.P.
Weight 1165 lbs.
Six Cylinders, 200 H.P.
Weight 1460 lbs.

Hall-Scott LM-6 200 *H.P. Marine Engine. Weight* 1460 *lbs.*

In Florida Waters



YOU cannot appreciate the delight of real silky smooth power until you have taken a ride in a Hall-Scott powered boat and enjoyed the thrilling sensation of being carried at express train speed over sparkling waters. In Florida and adjacent waters the majority of the more aristocratic craft,—cruisers, speedsters and runabouts, are Hall-Scott powered. Their owners are frolicking around, cruising and exploring to their hearts' content, as they never did before. There's a reason—the delight and feeling of security in owning a boat with a dependable power plant—a Hall-Scott, which incidentally means a better boat.

Catalog and prices sent upon request.

HALL-SCOTT MOTOR CAR CO.

EASTERN BRANCH, 887 NIAGARA STREET, BUFFALO, N. Y.

Factory, Berkeley, California

New York Distributor:
Wilbur H. Young,
522 Fifth Ave., New York City.

Florida Sales and Service:
Power Marine Ways Co.,
West Palm Beach.

"Lively Bees Wing," one of the far-famed Belle Isle Bearcats, and a very popular boat in southern waters. Standard power equipment is the LM4 or LM6 Hall-Scott. Mr. C. P. Davis of Tampa is the owner of "Lively Bees Wing."

Boats Building Everywhere for Gold Cup Regatta

(Continued from page 44)

Event No. 2

Handicap Express Cruiser Championship of America

Date: Aug. 26–27, 1925.
Course: Middletown, Connecticut to Manhasset Bay.
Distance: About 115 miles.

Open to Express Cruisers (speed, 16-22 knots in race) of not less than thirty (30) nor more than sixty (60) feet water line length, powered with American marine motors, handicapped according to 1925 A. P. B. A. racing rules; winner to hold Express Cruiser Trophy for one year or until next race. Trophy now held by Harpoon, Middletown, (Conn.) Yacht Club. (See complete Deed of Gift, pages 132–133, 1924 A. P. B. A. rule book.)

This race will be run in two laps; Middletown, Connecticut to Sachems Head, Connecticut on August 26 and Sachems Head, Connecticut to Manhasset Bay.

Complete information about this event may be had from M. S. Cornell, Jr., Middletown Silver Company, Middletown, Conn.

Entries: Close 10 days before race.

Event No. 3

Handicap Cruiser Championship of America

Date: Aug. 28, 1925.
Time: 10 A. M.
Course: Manhasset Bay to and around Stratford Shoal Light and return to Manhasset Bay.
Distance: About 80 miles.

Open to Cruisers (speed, under 8½ knots speed in race) and Fast Cruisers (speed, 8½–12 knots in race) of not less than thirty (30) nor more than forty-five (45) feet water line length, handicapped according to the 1925 American Power Boat Association racing rules; winner to hold Cruiser Championship Trophy for one year or until next race. Trophy now held by Nueva of Shelter Island Yacht Club. (See complete Deed of Gift governing Cruiser Championship Trophy, pages 111 and 112, 1924 A. P. B. A. Year Book.)

Complete information and circular of instructions for this race may be had upon application to the Committee.

Entries: Close 10 days before race.

Event No. 4

One-Mile Championship Trophy

Date: Aug. 28, 1925.
Course: One mile, straightaway on Manhasset Bay to be run six times in consecutive runs.

Open without restrictions, to all types of boats, irrespective of power plant, piston displacement, type of underbody.

The match will consist of six trials of each contestant over a straightaway course of 5,280 feet in length. Starts will be "flying," and the time will be taken as the stern of the boat crosses the line. Three trials will be made in one direction and three in the opposite direction. Each contesting boat will run six times over the course by herself in such order as shall be determined by the drawing of lots. A boat starting a trial must finish all six runs without leaving the course.

The winner of the match will be the boat making the fastest time for six trials provided, however, that unless the average speed is greater than the existing American Power Boat Association record for one-mile (80.567) the cup shall remain in the possession of the challenged club (the Detroit Yacht Club).

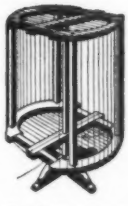
Averages of the mile runs are to be computed under admiralty conditions. The boat, engine and accessories must be manufactured in the United States or Canada.

Each entry for the mile trials is required to pay an entry fee of $100 which will be returned to the owner provided his boat in the trials shows an average speed within ten miles per hour of the existing American Power Boat Association record (80.567).

(Continued on page 68)

Advertising Index will be found on page 142

Fun for Every Season with a Radiola Super-Heterodyne



Extra, Radiola Loop Type AG-814—to get record distances with the "Super-Het"—$12

Radiola Super-Heterodyne, with 6 Radiotrons UV-199 and Radiola Loudspeaker; with compartments to hold the batteries. Entirely complete except batteries . $269

There are many Radiolas at many prices. Send for the free booklet that describes them all.

At home now—or off in the hunting lodge. Next summer—out at camp, or on your motor boat. Fun *everywhere* with a "Super-Het." It needs no antenna—no wires, and you can take it from place to place. It gets distance—makes records for quality of reception, and dependability. Once you've found a station and marked it on the dials, you can take the set anywhere, and just turn to the same two spots to tune in. Make it a *real* Christmas with a Radiola Super-Heterodyne—for four seasons a year of fun!

"There's a **Radiola** *for every purse"*

Radio Corporation of America

Sales Offices

233 Broadway, New York 10 So. La Salle St., Chicago, Ill.

28 Geary St., San Francisco, Cal.

Radio Corporation of America

Dept. 5912 (Address office nearest you). Please send me your free Radio Booklet.

This symbol of quality is your protection

Name

Street Address

City R.F.D.

State

Radiola

REG. U.S. PAT. OFF.

Boats Building Everywhere for Gold Cup Regatta

(*Continued from page 66*)

See complete Deed of Gift, pages 106 and 107, 1924 A. P. B. A. Year Book.

Entries: Close 10 days before race.

Events Nos. 5, 7, and 9

A. P. B. A. Championship of America for Gold Cup

Date: Aug. 29, 1925.

Time: 1st heat 2:00 P. M.
2nd heat 3:30 P. M.
3rd heat 4:45 P. M.

Distance: Three heats of thirty (30) miles each around a three-mile course, held on one day.

Course: Each heat ten times around 3 mile Gold Cup Course.

This race is open to displacement craft of over twenty-five (25) feet in water line length, powered with motors not exceeding 625 cubic inches piston displacement. (See complete Deed of Gift, pages 95 to 105, 1924 A. P. B. A. Year Book, with amendments for 1925.)

The winner of this race shall be awarded the Gold Challenge Cup for one year or until the next race.

There is no limit to the number of challenges from any individual or any club. The winner is determined by the point system and the boat, engine and accessories must be manufactured in the United States or Canada. Boats must be equipped with an efficient reverse gear, self-starter, full equipment, and shall not be equipped with a gear box.

Entries: Close 10 days before race.

Event No. 6

Twelve-Mile Race For Coast Guard Boats

Date: Saturday, August 29, 1925.

Time: 2:50 P. M.

Course: Four times around regular three mile Gold Cup Course.

This event will be open to boats of the United States Coast Guard which are employed in the so-called rum chaser service. The boats will be divided into classes so that those in each class will be identical in type, size, power, etc.

The winner of each class will be awarded the Coast Guard Championship Cup.

There are no restrictions other than that a boat shall be enrolled in the Coast Guard and be actually in service.

Entries will close twenty-four hours before the race and may be sent to any member of the Committee.

Event No. 8

Baby Gar Invitation Race

Date: Saturday, August 29, 1925.

Time: 4:20 P. M.

Distance: Twelve miles.

Course: Four times around regular 3 mile Gold Cup Course.

This race is open to displacement runabouts of the so-called Baby Gar type of about 32 feet in length, powered with one stock Liberty motor of 1650 cubic inches, piston displacement.

There are no restrictions other than that the boat must be a stock Baby Gar runabout powered with a stock Liberty motor employing ordinary fuel.

Event No. 10

Free-for-All Displacement Runabout Race

Date: Saturday, August 29, 1925.

Time: 5:45 P. M.

Distance: Twenty-four miles.

Course: Eight times around regular 3 mile Gold Cup Course.

This race is open to displacement runabouts of all sizes and powers without any restriction whatsoever as to piston displacement, power plant, etc.

(*Continued on page 70*)

Advertising Index will be found on page 142

MIAMI BEACH

THE facilities at Miami Beach for enjoying your favorite recreation are equalled by no other resort. Boating, bathing, fishing, golf, polo, tennis, roller skating, ice skating, horse racing, motoring—all are at their best under the ideal conditions of superb climate and cloudless skies.

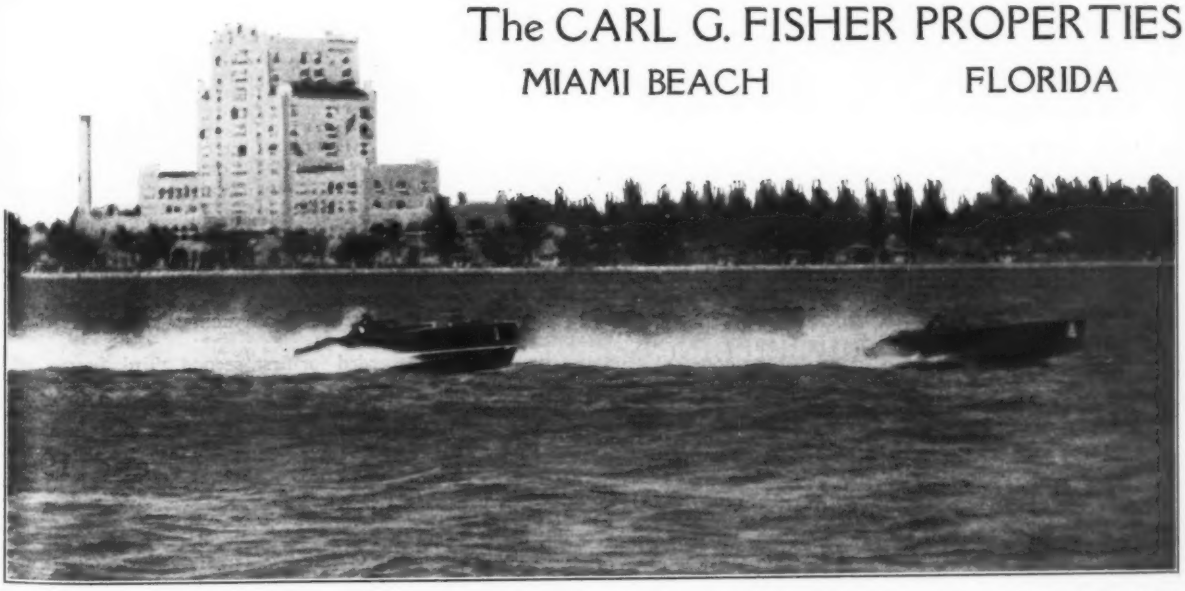
The brilliant winter season is now at its height, culminating in the Annual Southern Regatta to be held at Miami Beach, March 20th to 22nd. Boat races of national importance feature this event, including the Horace E. Dodge trophy, the Fisher-Allison trophy and the $10,000 Carl G. Fisher cash prizes.

A permanent residence at Miami Beach is an excellent investment for annual visitors. Let us send details of available property and photographs of beautiful homes ready for occupancy.

Write today for data and plans

The CARL G. FISHER PROPERTIES

MIAMI BEACH FLORIDA



Boats Building Everywhere for Gold Cup Regatta

(Continued from page 68)

Event No. 11

Outboard Motor Championship

Date: Sunday, August 30, 1925.

Time: 10 A. M.

Distance: Three miles.

This race is open to boats powered with outboard motors. The course will be once around the regular old Cup Course. The boats will be divided into three classes as specified by the A. P. B. A. rules as follows:

Class A—Engines under 12 cubic inches piston displacement.

Class B—12 to 17 cubic inches piston displacement.

Class C—17 cubic inches piston displacement or more.

Any make of stock outboard motor may be used but reboring of cylinders is prohibited. Any addition to or modification or removal of motor parts will be permitted. Any kind of fuel or mixture of fuels may be used and mufflers may be removed. Boats must be at least fourteen feet in length but there will be no other restrictions on hulls except that canoes may not enter.

Boats in the three classes will be started together at 10 A. M.

Each boat must carry two persons, both of whom must be amateurs and anyone under fifteen years of age will not be allowed in a boat during the contest. (See complete rules 1924 A. P. B. A. year book, pages 137-139.) Entries will close twenty-four hours before race.

Event No. 12

Aquaplane Race

Date: Sunday, August 30, 1925.

Time: 10:35 A. M.

Distance: One-half mile.

Course: One-half mile straightaway finishing in abeam of Committee boat.

This race is open to aquaplanes, without restrictions. Aquaplanes may be towed by any type of boat and the usual rules of the road and racing rules will apply.

The course will be a half-mile straightaway with a horse race, "flying" start. Persons falling from an aquaplane after the start of the race will automatically be disqualified.

Entries will close one hour previous to the race.

Event No. 13

Truth Race

Date: Sunday, August 30, 1925.

Time: 11 A. M.

Distance: Not over ten miles.

Course: In Manhasset Bay, exact location to be announced before start of race.

This race is open without restrictions to all types of motor boats. Displacement, hydroplanes, cruisers, outboard motor boats, etc. The length of the course for this race will be unknown to any but the Committee. The course will be announced from the Committee boat, fifteen minutes before the start of the race.

Previous to the race, the owner of each boat will declare the maximum speed of his boat and after the race the boat which has finished the race in the speed nearest to its declared speed will be the winner.

An invitation is extended to all yachtsmen to enter their craft in this race.

Prizes will be awarded for first, second, third, fourth and fifth places.

Entries close 9 A. M. on Sunday, August 30, and must be made with the Committee aboard the Committee boat.

Events Nos. 14, 15, 17 and 19

Dodge Trophy for Inter-Class Championship

Date: Sunday, August 30, 1925.

Time: First heat, twelve, noon; second heat, 1:20 P. M.; third heat, 2:20 P. M.; fourth heat, 3:20 P. M.

(Continued on page 72)

Advertising Index will be found on page 142

Heavy Duty Engine

The Otis Engine Corporation, 247 Park Avenue, New York N. Y., have issued descriptive booklets of the Otis line of engines, which includes separate units for hoisting, marine units, power units, and sundry purposes. While the most interesting use is naturally the marine unit, the other machines are also exceedingly serviceable. The engines are gasoline operated, and built to meet the requirements of pleasure, sail, and work boats. They are all arranged for a reduced speeds on the propeller shaft, and come in three sizes. The high speed unit will deliver from 800 to 1,200 revolutions of the propeller. The heavy duty unit, with a built-in gear reduction of from 150 to 450 revolutions per minute of the propeller, is intended for much heavier jobs, where the work is unusually severe. The marine industrial unit is built with the same gear reduction as the heavy duty units, but in addition is fitted with hoist drums or winch heads. These machines are all driven by the same engine, which is the four cylinder Fordson unit, and delivers about 30 brake horse-power on a bore and stroke of 4 by 5 inches. Complete circulars describing the engine in greater detail can be had from the company.

Boats Building Everywhere for Gold Cup Regatta

(*Continued from page 70*)

Distance: Four or more heats of twelve miles each.

Course: Each heat, 4 times around regular 3-mile Gold Cup course.

This race is open to displacement craft whose piston displacement does not exceed the boat's length cubed divided by 25. The boat which first wins four heats will be awarded the Dodge Memorial Trophy for one year or until the next race is held. If a sufficient number of entries are received, boats will be divided into classes of approximately the same power, size and type and raced together in preliminary heats. Sufficient preliminary heats will be held until one boat has won two heats and the boats winning first and second places in the preliminary heats will be entitled to race in the finals. A sufficient number of final heats will be held until one boat has won two final heats.

In the race for the Dodge Memorial Trophy, there is no limit to the maximum or minimum length of hull, provided the piston displacement does not exceed length cubed, divided by 25. Boats of the displacement type only are permitted, without gear boxes. The water line beam at the widest section must not be less than the square root of the water line length. The rules for the A. P. B. A. Gold Cup as regards type of underbody, watertight compartments, hatch covers, exhausts, reverse gear, self-starter, helmsman, equipment, superchargers, etc., will apply also in the Dodge Trophy Race. Complete deed of Gift and rules for this race will be sent upon application to the race committee.

Entries close ten days previous to race.

Events Nos. 16 and 18

Hydroplane Race for the 151 Cubic Inch Class

Date: Sunday, August 30, 1925.

Time: First heat—1:50 P. M.; second heat, 2:50 P. M.

Distance: Two heats of six miles each.

Course: Each heat twice around regular 3 mile Gold Cup Course.

This race is open to hydroplanes powered with motors of not over 151 cubic inches piston displacement, complying with the Mississippi Valley Power Boat Association rules for this class.

Complete rules may be had from Gerald T. White, c/o Rudder, 9 Murray Street, New York City.

Racing rules of the Mississippi Valley Power Boat Association will be used in this race. Entries close ten days before race and should be made to Gerald T. White, 9 Murray St., New York City.

Event No. 20

Twelve-mile Race for Sea Skiffs

Date: Sunday, August 30, 1925.

Time: 3:15 P. M.

Distance Twelve miles.

Course: Four times around regular 3 mile Gold Cup Course.

This race is open to the so-called Sea Skiffs without restrictions as to power plant, type of body, length of hull, etc., provided they have been engaged in actual off-shore work for at least one month previous to the race.

Entries close twenty-four hours before the race and should be made to the Race Committee.

Event No. 21

International Trophy

Date: Sunday, August 30, 1925.

Time: 4:30 P. M.

Distance: One heat of 105 miles.

Course: Thirty-five times around regular three mile Gold Cup Course.

This race is for the Development Class and is open to all craft, displacement or hydroplane, with no restrictions as to hull, bottom, or power plant, except that piston displacement must not exceed length cubed, divided by 19. (See complete Deed of Gift, 1924 A. P. B. A. Rule Book, page 134–135.)

Advertising Index will be found on page 142

Advertising Index will be found on page 142

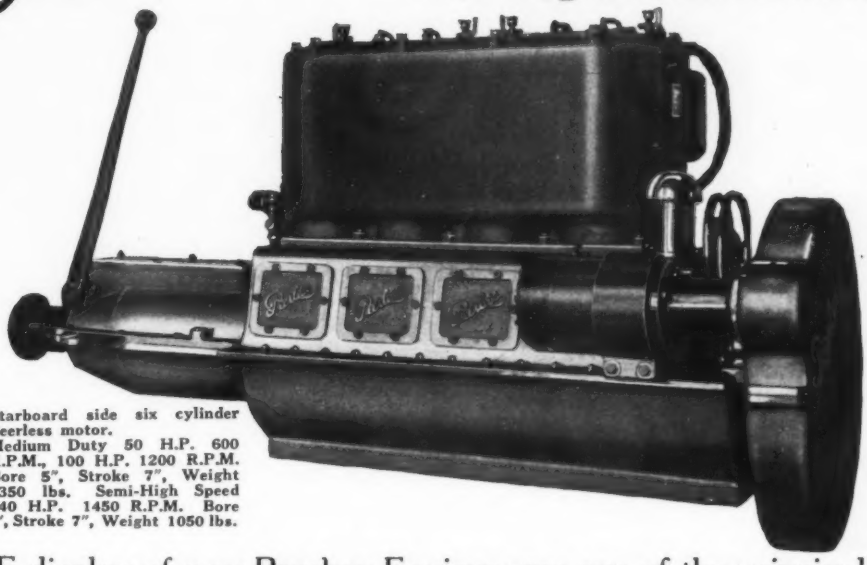
Advertising Index will be found on page 142

Advertising Index will be found on page 148

Advertising Index will be found on page 142

Peerless

"The Engine that Makes Good"

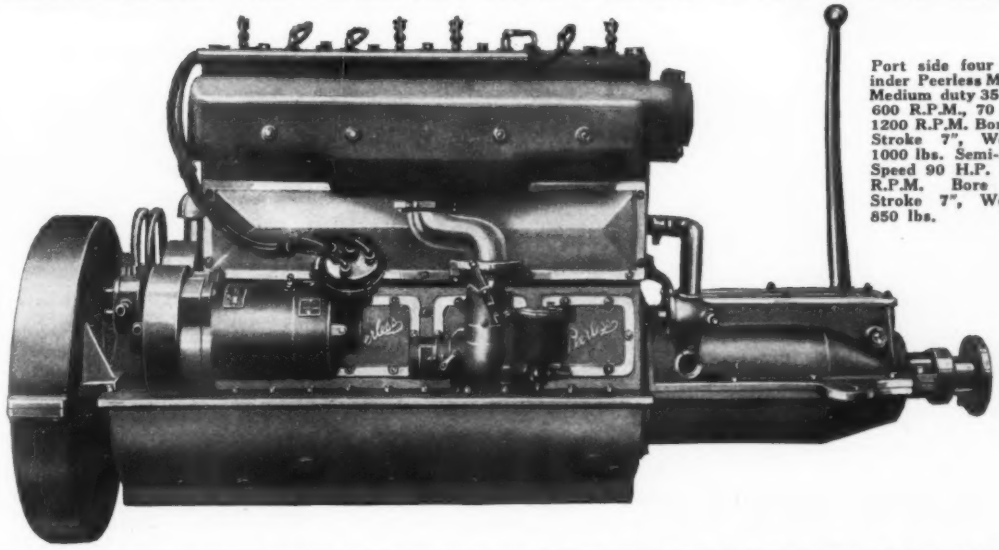


Starboard side six cylinder Peerless motor. Medium Duty 50 H.P. 600 R.P.M., 100 H.P. 1200 R.P.M. Bore 5", Stroke 7", Weight 1350 lbs. Semi-High Speed 140 H.P. 1450 R.P.M. Bore 5", Stroke 7", Weight 1050 lbs.

THE display of new Peerless Engines was one of the principal attractions at the New York Motor Boat Show. Comments on the design, material and workmanship of the latest Peerless four and six confirm our claims of superiority in quality and that the new Peerless is the culmination in marine engine design.

Descriptive literature sent promptly upon request.

PEERLESS MARINE MOTOR CORP. 2160 Niagara Street Buffalo, New York



Port side four Cylinder Peerless Motor. Medium duty 35 H.P. 600 R.P.M., 70 H.P. 1200 R.P.M. Bore 5", Stroke 7", Weight 1000 lbs. Semi-High Speed 90 H.P. 1450 R.P.M. Bore 5", Stroke 7", Weight 850 lbs.

Gray Motors

$466

As shown including electric starting and lighting

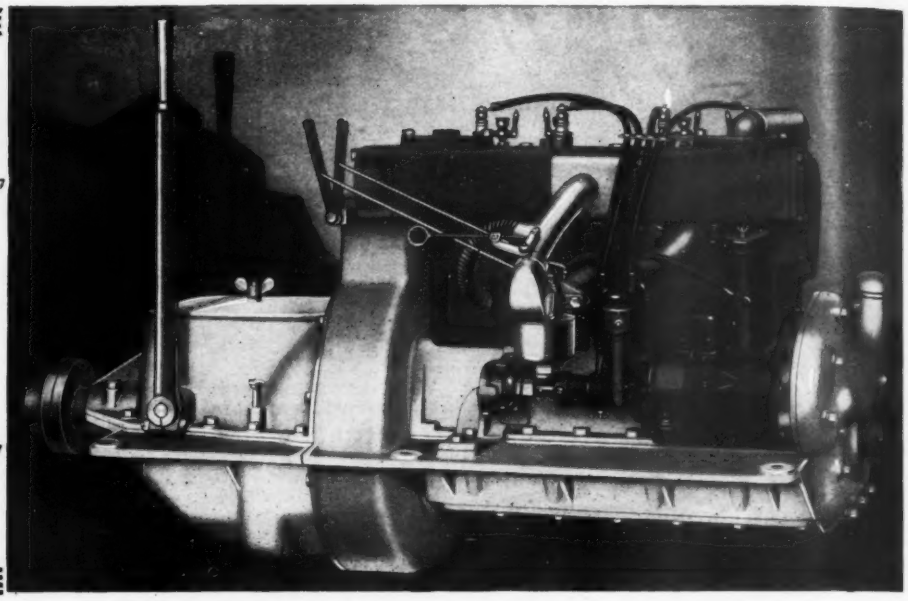
14-20 H. P.

1925

GRAY

Model

Z



NO WHERE ELSE SO MUCH POWER, SO WELL EQUIPPED, AT SUCH A PRICE

POWER, equipment, price, single out Gray Model "Z" as a new leader in the marine field for runabouts up to 20 mile speeds and for 10 mile cruisers.

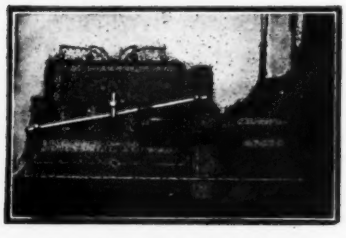
For pleasure boats and medium duty workboats, where unquestioned, smoothness, dependability and economy, first and last, must be considered, Model "Z" has proved itself the peer of all engines during the two years it has demonstrated unfaltering fitness, to boat builders and boat users.

It has shown the endurance and superiorities that have made Gray Engines famous the world over, for twenty years.

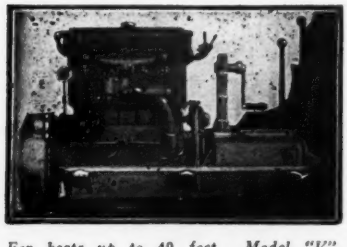
Model "Z" has recorded a gasoline economy that has not been excelled by stock production in motor records.

It has beauty of design and finish, that far excels engines near its price class.

Model "Z" at last records the best balance between low price and highest efficiency that the industry has attained.



Starter side (Starboard) Model "Z," length 38¼" over all. 62% of entire surface is salt water resisting aluminum. Greatest depth below base 6", height 14½". 395 pounds complete. For boats up to 38 feet.

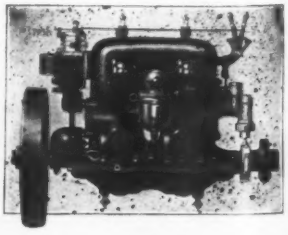


For boats up to 40 feet. Model "V", 3½" bore x 5" stroke, from $465 to $720, depending on equipment. Weight 550 pounds. Used by United States Government. Pressure lubricated. Write for new catalog just off press.

Get all the facts — write for

New Gray catalogs—ask for any one, or all.

Model "O" single cylinder, 4 cycle 5 H. P.	$99.00
Model "Z" 14-20 H. P.	$235.00 to $466.00
Model "V" 25-35 H. P.	$465.00 to $720.00
Model "VE" 35-40 H. P. heavy duty	$600.00
Model "U" double cylinder, 2 cycle 6-8 H. P.	



2 CYCLE

3 H. P. to 8 H. P. New 2 cycle catalog sent on request. Standard the world over for 17 years, money-back guarantee, free trial.

Boston: Gray-Aldrich Co., Inc., No. 6 Commercial Wharf, Boston, Mass.

New York City: Bowler, Holmes & Hecker Co., 259 Greenwich St.

GRAY MARINE MOTOR CO., 6910 Lafayette Ave. East at Canton **Detroit, Mich., U. S. A.**

Advertising Index will be found on page 148

A Great Success

The Elco Twenty-Six

Powered with Gray Model "Z"

A Sturdy and Complete Elco Cruiser For Less Than Two Thousand Dollars

FOR more than thirty years the Elco Works of Bayonne, N. J., has been the leading exponent of standardized boat construction, a leader in quality as well as in number of boats produced. So when Elco decided to build a smaller and lower priced cruiser than ever before, big things were expected. The first public appearance of the Elco Twenty-Six was at the Motor Boat Show of 1925. It's success was unmistakable, expressed not merely in pretty compliments but in more actual orders signed during the show than most builders receive throughout the year.

The Elco Twenty-Six is a class I cruiser with complete sleeping and living accommodations for a party of four. It is a handsome design, thoroughly seaworthy, unusually roomy inside and the construction meets the Elco standard for quality and durability.

Gray Model "Z" the standard power equipment for the Elco Twenty-Six, gives a reliable cruising speed of nine miles per hour. It is equipped with electric starter and generator, giving full electric lighting. Here's the boat you've been waiting for.

The Elco Twenty-Six is the biggest little boat you ever saw. Designed and built by the Elco organization and powered by Gray, you can depend on it that this boat is the last word in servicability and value. You can see it at Port Elco, the Elco Permanent Showroom at 222 East 46th St., New York, or at the Elco plant, Bayonne, N. J.

Cabrilla, A Day Cruiser

(Continued from page 37)

1½ by 2¼ inch white oak set on 28½ inch centers and there will be 12 of these. The side and bottom frames will be fastened at the angle of the chine with white oak corner pieces 1⅛ inches thick; these to be fastened with galvanized screws or bolts. The corner pieces should be fastened on the after face of each frame. At the keel there will be a floor timber to join the ends made of 1½ inch white oak; the depth of these vary as shown on the plans. Like the corner pieces these will be screw fastened or bolted. Do not use nails in this part of the construction.

It is very important to have the frames and floor timbers securely fastened to the keel and deadwood. This is usually the weakest part of the structure so to assure strength here, through fasten the floor timbers to the keel with ⅜ inch galvanized iron bolts; the heads counter sunk into the keel and nuts inside set up on washers. There should be one bolt to each frame and the keel ends of the frames as well should be fastened with boat nails.

The chine piece will be made of 2¼ by 4 inch yellow pine in a single length. A rabbet must be cut for both the side and bottom planking. The chine will be fastened to the corner pieces and not to the frames and a single ⅜ inch bolt should be used for this purpose at each frame.

The clamps will be made of two pieces of 1 by 3 inch yellow pine spiked together after they have been bent in place. By doubling this member it will bend easily and be stronger as well. There will be an inwale along the sheer as shown made of ⅞ by 3 inch yellow pine, this will be fitted before any of the planking is applied and before the deck beams have been fitted. The planking seams will be battened with ½ by 2½ inch white oak. Let the battens in as the planking progresses for in this way you will be sure that each batten is exactly centered behind its seam.

The planking on sides and bottom will be ⅝ inch white cedar. On the sides there will be 6 strakes fastened with 1½ inch number 10 galvanized iron screws; the heads of these should be countersunk and covered with boat plugs. Along the battens the fastenings should be ⅞ inch number 8 galvanized screws spaced about 3 inches apart. Lay the planking in the rabbet and against the battens in Jeffery's liquid marine glue; it will then be unnecessary to caulk or putty these seams. On the bottom the planking should be laid with the keel keeping the strakes the same width for their entire length; there will be six planks each side. It will be necessary to butt most of the planks as it is difficult to buy cedar over 20 feet long. Butt blocks should be made of ⅝ inch oak and well fastened with screws. A boat with butted planking is just as strong as one with buttless planks, providing the butts are securely fastened.

The deck beams will be made of 1⅛ by 2½ inch white oak set one to each frame and one between, this will bring them on 14¼ inch centers. The beams should be nailed to the clamp and to the heads of the side frames with boat nails.

The deck will be ⅞ by 3 inch tongue and groove white pine fastened with galvanized wire nails and covered with 10 oz. duck. It is not necessary to putty the seams or the holes over the nail heads but lay the duck in marine glue. The duck will be turned down over the deck edge and covered with the sheer moulding and it is a good plan to let three or four inches extend inside the sides of the cabin trunk to be turned up later and thus make the joint between the house and the deck perfectly water tight. Duck will last longer on the deck if it is underlaid with felt about 1/16 inch thick because the felt forms a cushion that absorbs shocks and bumps.

The house sides will be ⅞ inch white oak or cedar and will need to be steam bent over a form in order to make the curve forward. There will be a butt in the sides about 5 feet from the forward end and between the two windows. Notice that the house sets *on* the deck which is the only way it will keep water tight. Then there is a face piece inside to cover the joint and hold the house on. The house carlines will be made of 1¼ by 2 inch white oak set on 12 inch centers, and then decked with ⅝ by 3 inch tongue and groove white pine. The house top will also be covered with 10 oz. duck laid in glue.

Inside, the hull will be ceiled above the chine with ½ by 2 inch vee edge white pine staving, the purpose of this being to strengthen the hull as well as to obtain a smooth finish in the cabin and cockpit.

The motor beds will extend over at least three frames and be fastened to the floor timbers with through bolts ½ inch in diameter. As shown there will be an extra floor timber at the after end of the beds which by the way will be made of 2½ inch white oak. The spacing of the beds will depend upon the motor used. Do not however reduce their dimensions even if small power is installed.

(Continued on page 92)

Advertising Index will be found on page 142

KRETZER BOAT & YACHT WORKS
Builders of
up-to-date craft
218 Street and Harlem River
NEW YORK

Erd Motors Corporation,
Saginaw, W. S., Michigan

Gentlemen:

Want to compliment you on the design and construction of the 20-35 H. P. Motor which you recently shipped to us.

You have turned out a motor fully up to your promises. The motor was run 600 miles and the performance has delighted us beyond measure. The smooth running qualities of the Erd 20-35 H. P. motor is a triumph of the gasoline engine builders' art. Motor Boating is a pleasure with a motor of this kind.

Very truly yours,

KRETZER BOAT & YACHT WORKS
by W. C. Kretzer

SPECIFICATIONS

Massive, three-bearing, CHROME NICKEL STEEL crankshaft.
Largest bearings of any motor its size. End play adjustment for crankshaft—the only Marine Motor so equipped.
Lubrication—full force feed system by internal gear pump through HOLLOW CAMSHAFT and drilled crankshaft to all bearings.
Main bearings, connecting rod bearings, and even camshaft bearings bronze back, nickel babbitt lined type.
Main bearing studs, connecting rod bolts, even cylinder head studs, nickel steel, heat treated.
Extra large valves of nickel steel alloy.
Hollow valve tappets, easily removable without disturbing valves.
Bronze gear water pump with salt water fittings throughout.
Most cleverly designed hot-spot manifold.
PARAGON REVERSE GEAR, nickel steel shaft, running on double row annular and thrust ball bearings. Stuffing box.
All working parts completely enclosed. No oil leaks.
Not a single grease cup on the whole motor.
UNBELIEVABLE POWER! More than 22½ h.p. at 1,000 R.P.M., 35 h.p. at 1,600 R.P.M., 42½ h.p. at 2,100 R.P.M.

Erd

22½ H. P. at 1000 R. P. M.
35 H. P. at 1600 R. P. M.
42½ H. P. at 2100 R. P. M.

"Motor Boating a real pleasure with a motor like this"—Says W. C. Kretzer

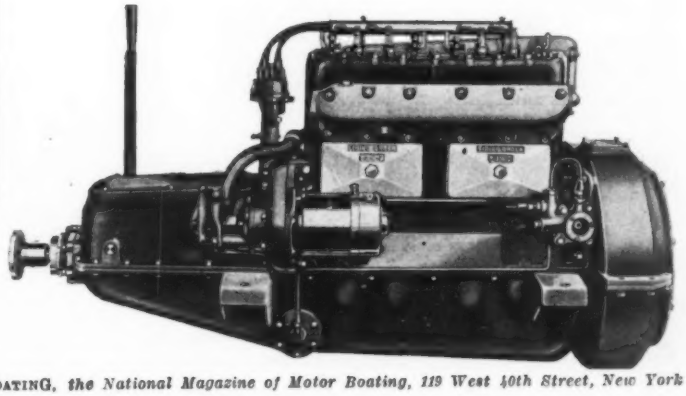
IN the Erd S-4 type, 20-35 H.P. motor, you find many advantages, many improvements and the best motor engineering principles, combined and co-ordinated into a design that embodies perfect balance—an engine that runs with the smoothness and accuracy of a fine time-piece. Careful engineering has produced a marine motor with the greatest power ever developed by an engine of its bore and stroke.

Ride in a boat powered with the Erd S-4 and you will be amazed at its power producing superiority. You will be quick to recognize the mechanical excellence, the remarkable freedom from care and attention, the ease of control and the great flexibility of speed range.

For your runabout or cruiser you can select no finer or more reliable four cylinder engine than the Erd S-4, and at a price that is without precedent in the marine engine industry.

Send for the Erd S-4 booklet before you decide on any motor. Let us quote you prices and give you full information.

ERD MOTORS CORPORATION
SAGINAW, MICHIGAN



Sea Shell, A Serviceable Boat

(*Continued from page* 39)

do this later. In painting allow plenty of paint to soak into the laps for this will go a long way toward keeping the boat tight. The flooring will be ½ inch white pine or spruce laid with seams about ¼ inch apart and with provision for the center piece to be removed for access to the bilge. It would be a good plan to cut a 4 inch diameter hole under the middle thwart so as to make sponging out easy.

There will be three thwarts and a stern seat made of ⅞ inch white cedar or spruce. The bottom edges of these should be beveled off so as to give the appearance of lightness; little refinements like this have more to do with one's satisfaction with a boat than anything else. There are lots of folks who can excuse a leaky boat if she is good to look at. The after seat will be laid in a fore and aft direction with a strong-back under its forward edge. Half inch stuff can be used for this.

Now if Sea Shell is to be used with an outboard motor, and we feel somehow, that most of them built will be, it would be a good plan to increase the thickness of the stern board to 1½ inches for this will permit a double row of screws in the planking ends and make a better bed for the motor. While it is true that these little machines run with practically no vibration it is also true that they have a lot of power and the thrust is a lot more than one supposes. Another thing to do is to bore for two drift bolts the entire width of the stern and drive in ⅜ inch rods; this will remove any likelihood of the stern board splitting, and is a very simple thing to do.

Turning back to the possibility of using this little craft as a sailing boat and therefore requiring a center board we had perhaps better give the location for it: this would be half way between stations 2 and 3. The board should be 12 inches wide and 2 feet deep below the bottom of the keel and made of 3-16 inch brass or bronze plate. In fresh water steel can be used. The top of the trunk should rise 2 inches above the top of the thwarts for otherwise water will slop in when the boat is under way. The sides of the trunk will be made of ⅝ inch white cedar while the head pieces will be oak 3/16 thick by 2½ inches wide. A piece of light canvas must be laid in Jeffery's glue between the keel and the apron piece for the length of the trunk to make the joint water tight. Screws driven in from the bottom up into the trunk sides will be ample for holding the trunk in place; at least four screws should be in each side.

The mast would be stepped through the foremost thwart, being 16 feet in length, 2½ inches diameter at the foot and tapering to 1¼ inches at the top. The boom should be 11 feet long and 1¾ inches in diameter. In stepping the mast set it at a rake of 12 inches in 10 feet; 4 oz. cotton drill is heavy enough for the sail.

If it is desired to plank Sea Shell with a smooth skin 9/16 inch cedar should be used and rather than have nine strakes on each side reduce the widths, laying at least ten. The narrower planking will make a better job and will be less work for it must be remembered that each plank will have to be hollowed on the inside so as to fit snugly against the frames, and then planed off outside. With the smooth skin the seams will of course require caulking and then must be payed and puttied. The lapped planking will be the stronger; but the smooth will be easiest to apply.

For the benefit of those who live on the Pacific coast, in the Middle West and the South it may be interesting to know that red wood is very good material for planking any kind of boat, and that fir will answer for spruce and yellow pine. Almost any kind of oak is suitable for use afloat excepting red oak, this will not last. Elm is one of the best bending woods known and will last for years and years in or out of water. Cypress, juniper, larch, and Southern pine are all right to use in boat work, but avoid poplar, hemlock and hickory for these woods won't stand up at all. Knees cut from old apple or pear trees are just as good as hackmatack but a little harder to work. Of all the woods in the world yellow pine, if it is clear, straight grained stock is about as good as any for the building of boats: it is little affected by the weather and while not hard will stand a lot of bumping and chafing. Looking backward at some old boats, we have come to the conclusion that a boat with a yellow pine keel, oak, or elm frame and cedar or cypress planking is about as good as anything can be. However it must be remembered that the way in which the thing has been put together is of greater importance than the materials used: therefore, bearing this in mind, most any wood can be shaped into a boat with a reasonable chance of its keeping for a long, long time, a joy to the builder and a joy to whomever it falls heir.

As a service to readers who might want larger copies of the drawings for Sea Shell to a scale of 1 inch to the foot, arrangements have been made to supply blue prints at moderate cost. Write to the Editor of MoToR BoatinG, 119 West 40th Street, New York, N. Y., for particulars of cost, and how to secure prints.

Advertising Index will be found on page 142

CRUISE EVERY MONTH

with Commodore Chapman in his Good Ship MoToR BoatinG

Share the Thrills of Exploring Strange Seas; Race in a Cup Winner; Visit Islands of Romance; Mix with Real Boatmen and Yachtsmen it is a Pleasure to Know

Here is Our Offer | **MoToR BoatinG AND YOUR CHOICE OF These Books**

AT PRICES THAT WILL SAVE YOU FROM *$1.00 to $3.00*

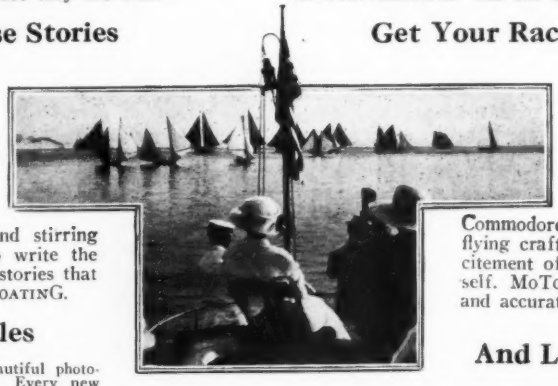
MoToR BoatinG brings your every sea-dream true. Even if you can't go cruising or racing now, with the winter wind howling about your snug room, *you can know* the thrill and joy of motor boating, by the simple act of mailing a card that brings this absorbing magazine to your reading table. MoToR BoatinG reproduces for you every thrill you would have if you were cruising. It changes dull winter evenings into swiftly-flying hours of the keenest enjoyment. Aside from the many valuable pages that appeal to the expert boatman, it contains stories of sea adventures that excel in excitement any sea fiction you can find, because they are true.

As you read, the floor beneath you becomes the deck of a motor boat. The wind against your windows becomes the swish of waves against the side of your cabin. Your soft electric light becomes the smelly, flickering cabin-lamp beneath which you pore over charts that show where gold-laden galleons are buried, or where pirate ports lie.

MoToR BoatinG is the only medium that conveys to you the first-hand joy of boating and cruising. Radio can reproduce or report almost every other sport, but it cannot bring to you the thrill of the sea. Ship for a long cruise aboard MoToR BoatinG. Let the card come by return mail.

Thrilling Cruise Stories

Famous travelers write of their experiences in MoToR BoatinG. Journey along the English coast and poke into the quaint little port towns with Alfred F. Loomis. Or accompany Van Campen Heilner on his tour of the tropical islands beneath the Southern Cross. Face danger and stirring events with the adventurers who write the gallant fiction and exciting cruise stories that appear every month in MoToR BoatinG.



Get Your Racing News Straight

Commodore Chapman officiates at nearly every race of consequence in the country. He knows all the sportsmen and their boats—takes beautiful action pictures of the contestants—frequently writes the reports of the races himself. And when the Commodore is at the helm of one of the flying craft, he makes you feel the mad excitement of the race, just as he felt it himself. MoToR BoatinG is the most interesting and accurate source of racing news.

The New Boat Styles

MoToR BoatinG is notable for its beautiful photographic illustrations of famous boats. Every new boat style is pictured and described each month. And MoToR BoatinG keeps you posted, too, concerning the newest improvements and accessories that make boating more pleasureable as a sport. And if you enjoy planning the boat you will some day build, you will spend happy hours poring over the blueprints and specifications for all types of boats that are drawn up by well-known naval architects and published every month in MoToR BoatinG.

And Latest Boat Mechanics

There are special monthly departments on the care of engines and motors, on radios for boats, on Yard and Ship news—Prize Contests which are open to all readers of MoToR BoatinG. All you have to do to compete for MoToR BoatinG's prize is to submit your answer to the question under consideration. And, of course, MoToR BoatinG is glad to answer any special technical questions about which readers write for information.

Send No Money

Laugh Every Month With Huck

Huck, who in private life is a dignified New Englander with a hobby for boating, lets his high spirits effervesce every month in an illiterate and side-splitting comment on the curious ways of sportsmen. We think, privately, that the reason Will Rogers hasn't taken up motor boating as a source of humorous inspiration is that he knows Huck has already beaten him to it.

Just Mail Order

Expert Advice on Boating Problems Free

MoToR BoatinG, in addition to the fund of information supplied in each issue, conducts a special Readers' Service Department in which foremost naval architects, marine engineers and boating authorities answer promptly and fully any questions our subscribers ask. Send in your problems. The right answer will come to you quickly by mail.

SUGGESTED CRUISES

In every issue men who have actually made them suggest interesting cruises for you and your boat, with charts and all necessary information.

LATEST ACCESSORIES

All the newest accessories and improvements are illustrated in MoToR BoatinG, and monthly articles discuss the various phases of repair and upkeep.

NEW BOAT MODELS

This section keeps you informed of all the new models produced by manufacturers and of their distinctive items of equipment.

BOAT PLANS

Valuable blue-print plans for boats designed by famous naval architects come to you with every issue of MoToR BoatinG

RACING NEWS

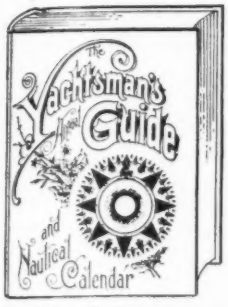
Every big race is reported in MoToR BoatinG, with remarkable action photographs.

Edited by Experts for Real Boatmen

MoToR BoatinG is a rare combination of expert information and thrilling sea stories and feature articles that instruct while they entertain. A typical example of such contents is a recent article entitled "The Boats of the Rum-Runners," and also "Beneath the Southern Cross," a series of cruising experiences by Van Campen Heilner, describing his exciting cruise in a 47-foot cruiser to the Bahamas. A fiction series by Peter B. Kyne, author of the "Cappy Ricks" stories, furnishes another example of the high quality of entertainment MoToR BoatinG furnishes while supplying a maximum of practical motor-boat information. It is indeed the national magazine of Motor-Boating, the favorite magazine of men who know.

Three of Our Special Gift Offers

Guide Books Every Boatman Needs ...*Free!*



Yachtsman's Annual Guide for 1925

THE YACHTSMAN'S ANNUAL GUIDE contains navigation charts and every scrap of information you will need on any cruise you plan to take. It is the only complete yachting handbook of boating information published. It combines the important data to be found in all the government publications of interest to motor boatmen and yachtsmen in one volume of 500 well-illustrated pages, bound compactly in a sturdy paper cover. You'll pay $1.50 for the YACHTSMAN'S GUIDE if you buy it from the publishers. We give it to you free with a two-year subscription to MOTOR BOATING.

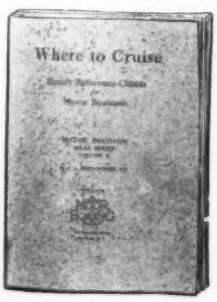
Flags of American and Foreign Yacht Clubs in color

THE BOOK shows in color over 1,000 flags of American and Foreign Yacht Clubs, National and Code Flags, Weather and Storm Signals, Yacht Club Signal Code. And the chapters on Yachting Etiquette and the Proper Flag to Fly tell how to observe the boating conventions on a cruise. This independent and separate book costs regularly $1.00. But we will send it to you *free* with a one-year subscription to MOTOR BOATING.

"WHERE TO CRUISE"

Handy Reference Charts for Motor Boatmen

Twelve alluring cruises—56 navigation charts



THE NEW third edition of MOTOR BOATING'S popular book "WHERE TO CRUISE" is durably bound to withstand water and wear. It measures 8½ x 11½ inches, and its pages won't tear in the wind like the clumsy government charts that have to be unfolded and spread out. The 56 charts show in detail the most suitable courses from all principal ports on the Atlantic seaboard from Maine to the Gulf, with magnetic courses and bearings, distances in statute miles, lights, buoys, etc. There are also charts for the Great Lakes and other smaller inland lakes, rivers and canals. Twelve complete cruises are outlined and others suggested. "WHERE TO CRUISE" contains all sorts of other valuable cruising data, too. It sells regularly for $2.00. But we will *give* it to you with a year's subscription to MOTOR BOATING for just $3.50.

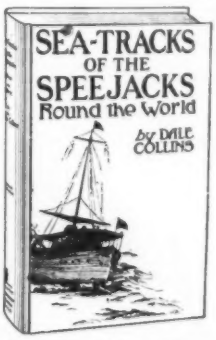
A Cruise Story that Takes you to the South Seas...*Free!*

Around the World in a 98-Footer

A WONDERFUL girl and 11 men on a 98-foot cruiser sailing to all the places you look at on the map for the glamour of the very names!

Dale Collins, one of the crew, tells about Gowen, the adventurous American who owned the Speejacks; about "Jean," his wife, who was so pretty and full of charm that she reminded him of the heroine of a Clarke Russell sea story.

For sixteen months Speejacks, the first motor-boat to circumnavigate the globe, played hide-and-seek with uncertainty, meeting with spine-tickling thrills and hair-raising escapes in her long journey through many uncharted waters and far out of the beaten paths of ordinary sightseers. The complete thrilling story of this dauntless little boat is in this handsome, costly, splendidly-illustrated book, which is yours as a gift.



Some Chapters that Show the Sea-Tracks of the Speejacks

Across the Wide Pacific.
A Race from the Port-of-Dreams-for-Sale to the Orient.
Winsome Dancers Before Goggling Gods.
Colliding with a Junk and Climbing a Volcano.
Through the Green Heart of Java.
Nights with Chinese Millionaires.
Mediterranean Days, A Bullfight.

Special Offer No. 1

MOTOR BOATING for two years with the book "Sea-Tracks of the Speejacks," English edition, 300 pages, with map of voyage and over 80 illustrations. $6.00

(Regular yearly subscription price—with the book as a Gift.)

Special Offer No. 2

MOTOR BOATING for two years with Yachtsman's Annual Guide, 1925 Edition, over 500 pages. The Only Yachting Handbook of Useful Boating Information, and also the book, "Flags of American and Foreign Yacht Clubs" in color, Supplement to the Yachtsman's Annual Guide.

$5.00....*You Save $3.50*

Special Offer No. 4

MOTOR BOATING for one year with Yachtsman's Annual Guide **$3.50....*You Save $1.00***

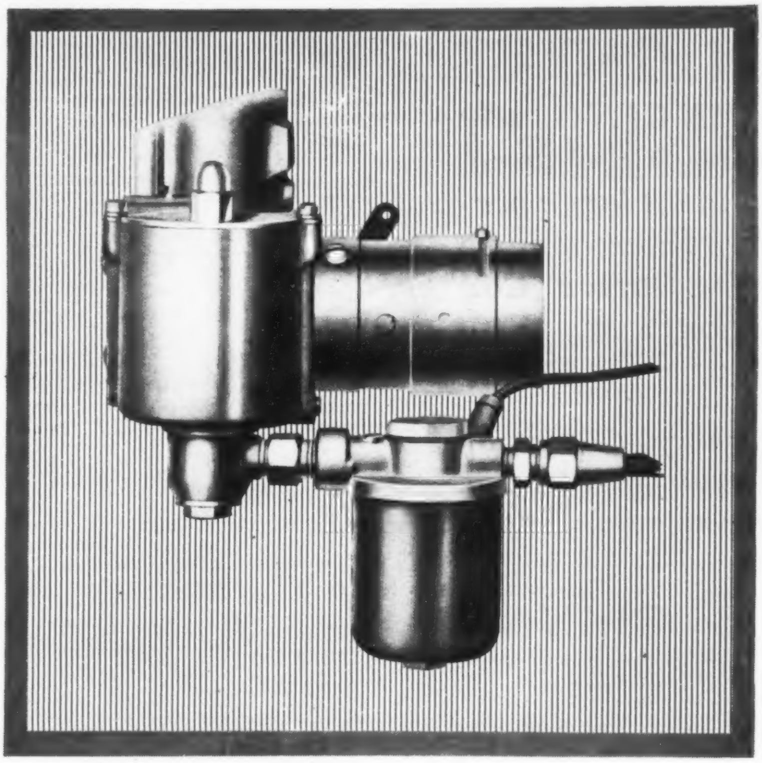
Special Offer No. 5

MOTOR BOATING for one year with book "WHERE TO CRUISE"—Handy Reference Charts—(12 cruises, 56 navigation charts.) **$3.50....*You Save $1.50***

Special Offer No. 6

MOTOR BOATING for one year at the regular subscription price with the book "Flags of American and Foreign Yacht Clubs," in color, as a gift. **$3.00**

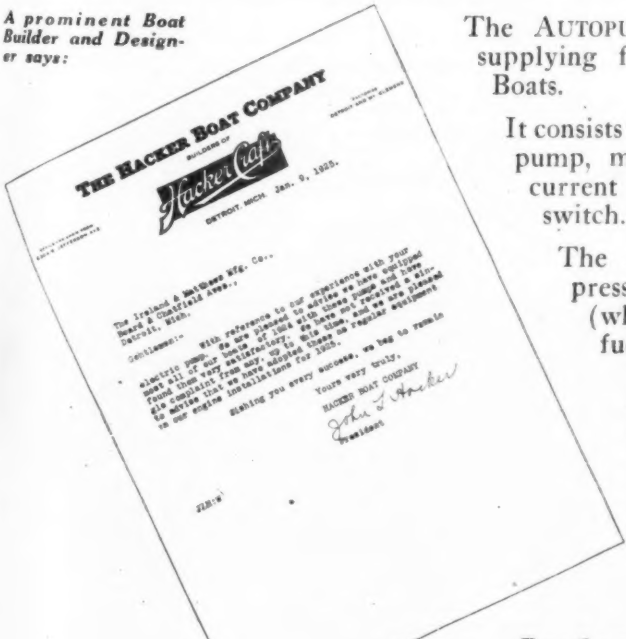
Advertising Index will be found on page 142



The Autopulse System

The Solution of Marine Engine Fuel Supply Problems

A prominent Boat Builder and Designer says:



THE HACKER BOAT COMPANY
BUILDERS OF
HackerCraft
DETROIT, MICH. Jan. 9, 1925.

The Ireland & Mathews Mfg. Co.,
Beard & Chatfield Aves.,
Detroit, Mich.

Gentlemen:-

With reference to our experience with your electric pump, we are pleased to advise we have equipped most all of our boats of 1924 with these pumps and have found them very satisfactory. We have not received a single complaint from any, up to this time, and we are pleased to advise that we have adopted these as regular equipment on our engine installations for 1925.

Wishing you every success, we beg to remain

Yours very truly,
HACKER BOAT COMPANY
John L. Hacker
President

The AUTOPULSE is a safe, reliable system of supplying fuel to the carburetors of Motor Boats.

It consists of a small, durable and very efficient pump, magnetically powered by a battery current and controlled by the ignition switch.

The AUTOPULSE maintains a constant pressure at the carburetor float valve, (which controls the delivery of the fuel) yet there is no waste pumping.

A single unit has a rated capacity of eight gallons. For greater capacity, additional units are used in multiple or manifolded. For example, the rated capacity of a five unit pump is forty gallons of gasoline per hour. (Sufficient for a Liberty motor.)

Much valuable territory still open

WRITE FOR COMPLETE INFORMATION

Ireland & Mathews Mfg. Co.

Beard Ave. Detroit, Mich.

Cabrilla, A Day Cruiser

(*Continued from page* 84)

Hatches, mouldings, wind shield, and all the other outside joiner work should be made of white cedar as this is light and the lighter the top hamper is the better the craft will behave. Mahogany of the lighter variety like that from Mexico, which is really bay wood, can be used, but don't use heavy lumber.

You will find that the boat will look best and be easiest to keep up if the house sides and coamings are painted and that if the bright work is limited to mouldings, hatch covers, etc: that she will be a better boat anyway. I have found long ago in this respect that "all that glitters is not gold."

We seem now to have covered the major items of the building and that with the plans herewith very little trouble will be experienced by the builder whether he is an amateur or professional.

As a service to readers who wish to build this boat, and might want larger copies of these drawings to a scale of ½ inch to the foot, arrangements have been made to supply blue prints at moderate cost. Write to the Editor of MoToR BoaTinG, 119 West 40th Street, New York, N. Y., for particulars of cost, and how to secure prints.

Yard and Shop

(*Continued from page* 46)

for a cash purse of $10,000. Benny Hill accepted the day after the Culver City race, which wound up the A. A. A. championship season, a race in which he set a world's record averaging more than 126 miles an hour for 250 miles and shattering all marks for 100 miles or more to that distance.

The attractive exhibit of the Johnson Motor Company showing the fast runabout and the cruiser Outboarder

An Innovation at the Show

Among all of the unusual boats and motor designs shown at the National Motor Boat Show, New York, the most unusual were the new 26 pound Outboard Motor just put on the market by the Johnson Motor Company and a 14 foot 25-mile-an-hour speed runabout powered by a motor that for boats of this speed is an entirely new type. This motor is the new 15 h.p. Johnson Outboard Motor.

The thought of driving a speed runabout at 25 miles an hour with an outboard motor is revolutionary, until you see the boat and the motor's application to it.

The Johnson Aquaflyer, which is the name of this boat, is shown in the foreground in the photograph of the Johnson Motor Exhibit. The motor on this boat tilts entirely out of the water, so that the boat may be beached if desired. The entire outfit is said to weigh only a little over 400 pounds—the motor itself weighing 100 pounds.

There is as much room in the Aquaflyer as in most boats of 20 to 25 feet, for of course no space inside the boat is taken up by the motor. During the Show motion pictures of the Aquaflyer in action were shown in the booth at frequent intervals.

The 26 pound Outboard Motor, which is called the Fisherman's Special is a Heaven-sent blessing to the sportsman who wants reliable water transportation but has to make long portages and therefore must consider its weight.

In addition to these two remarkable new products, the same company showed what was said to be the world's first Outboard Motor Cruiser—a boat twenty-two feet long and five feet abeam, whose only power was a standard 2½ h.p. Twin Cylinder Johnson Motor. This trim little craft, which in the photograph is shown just behind the Aquaflyer, cruised all over Long Island Sound and the other waters near New York last summer. Its performance is certainly sufficient to prove the dependability of outboard motors, even to the most skeptical.

(*Continued on page* 94)

Advertising Index will be found on page 142

McNab-Kitchen Rudder installed on large Diesel powered boat. Size of boat or wheel does not limit the applicability of the McNab-Kitchen Rudder

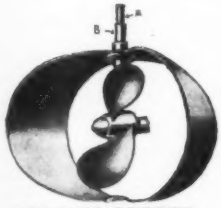
McNab-Kitchen Rudder

For All Powered Boats of Every Size

Adopted by United States and Foreign Governments

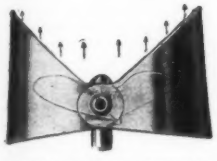
Gives Perfect Control

Steers--Reverses--Brakes--Maneuvers



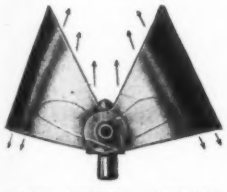
SHOWING RUDDER IN PERSPECTIVE

THE principle of the McNab-Kitchen Rudder is the control of the vessel by propeller stream deflection thus furnishing means for performing all boat maneuvers—steering, reversing, control of boat speed, etc. All without touching engine controls. No reverse gears, and no reversing of engine. The small illustrations on this page show the position of the McNab-Kitchen Rudder while various maneuvers are being executed.



FULL SPEED AHEAD

These rudders are being successfully used on power boats of every description, size and weight. And, even on all makes of outboard motors. In docking maneuvers the McNab-Kitchen rudder is unexcelled on account of its quick responsiveness.



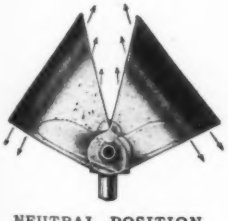
HALF SPEED AHEAD

Write today for full details.

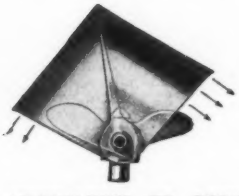
State size of boat, B.H.P. of engine and diameter of wheel.

McNAB-KITCHEN RUDDER CORP.

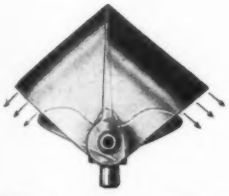
BRIDGEPORT, CONN., U. S. A.



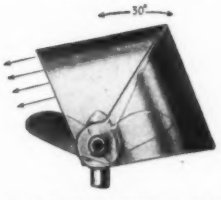
NEUTRAL POSITION BOAT STATIONARY



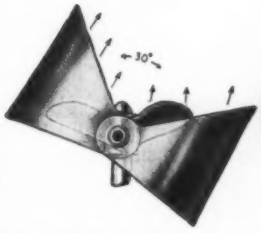
ASTERN-BOW TO PORT OR VICE-VERSA



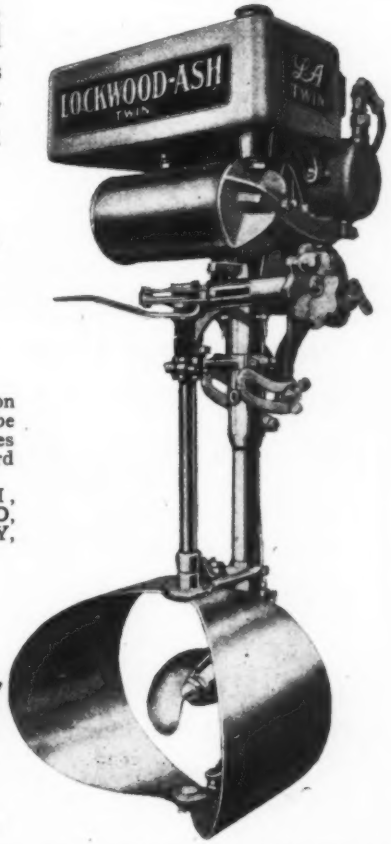
FULL SPEED ASTERN, WITH PROPELLER RUNNING AHEAD



RUDDER CLOSED, HARD OVER, BOAT SPINNING ON OWN CENTER



HARD OVER, BOW TO PORT



McNab-Kitchen Rudder on outboard motor. Can be attached in a few minutes to any make of outboard motor, including: LOCKWOOD-ASH, EVINRUDE, ELTO, JOHNSON, SPINAWAY, etc.

Yard & Shop

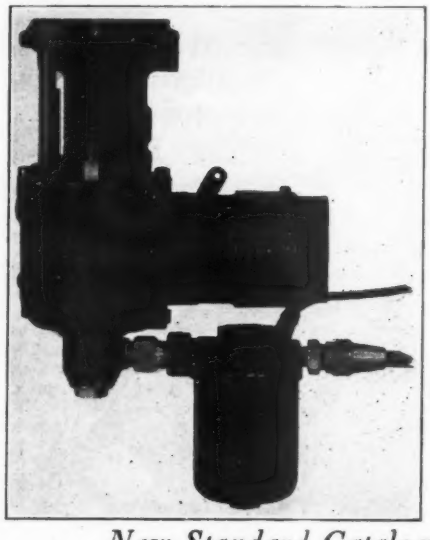
(*Continued from page 92*)

MoToR BoatinG Ads Work Wonders

A recent instance of the efficacy of the advertising in MoToR BoatinG was brought to light by the detection and recovery in New York of a boat which had been stolen from its owner in Cleveland. It seems that the Frisbie Motor Company used an illustration of this boat in one of its recent advertisements, before it was generally known that it had been stolen. One of MoToR BoatinG's reatlers had noticed the illustration of the boat in the Frisbie advertisement, and when he learned that orders had been given to cut off the stern of the boat, and alter it in other ways so as to disguise or change its appearance, his suspicions were aroused and he got in touch with the engine builders, and through the efforts of the reader and also of the Frisbie Company, the boat was properly identified, and the thieves apprehended and the boat restored to its owner. While no stretch of the imagination can claim that MoToR BoatinG's advertising is intended to bring about the recovery of stolen property, this one instance does show that the advertisements are as carefully read as the balance of this magazine.

The Autopulse System

An ingenious device, particularly designed to supply fuel to the carburetor of the gasoline engine, is the Autopulse which replaces or supplements all other forms of fuel supply now in use in gasoline installations. This device is a small and very efficient pump, magnetically operated by battery current, and controlled by the ignition switch. Its delivery stroke is spring driven, the spring being energized during the magnetic suction stroke. The fuel delivery is controlled by the carbureter float valve. When the carburetor is full, the boat valve closes, and pressure is built up within the pumping element, which causes the pump action to stop, and cuts the current off internally. Consumption of fuel reduces this pressure, and the battery circuit closes, so that the action goes on indefinitely. A single unit will deliver about twelve gallons per hour when not restricted, and can be supplied in six and twelve volt installations as desired. This device is now being installed on many of the best and highest grade motor boats, and this device promises to entirely replace all of the older forms of gasoline fuel supply. This device is manufactured by the Ireland & Matthews Manufacturing Company of Detroit, who will be pleased to send a description of the device to interested readers.



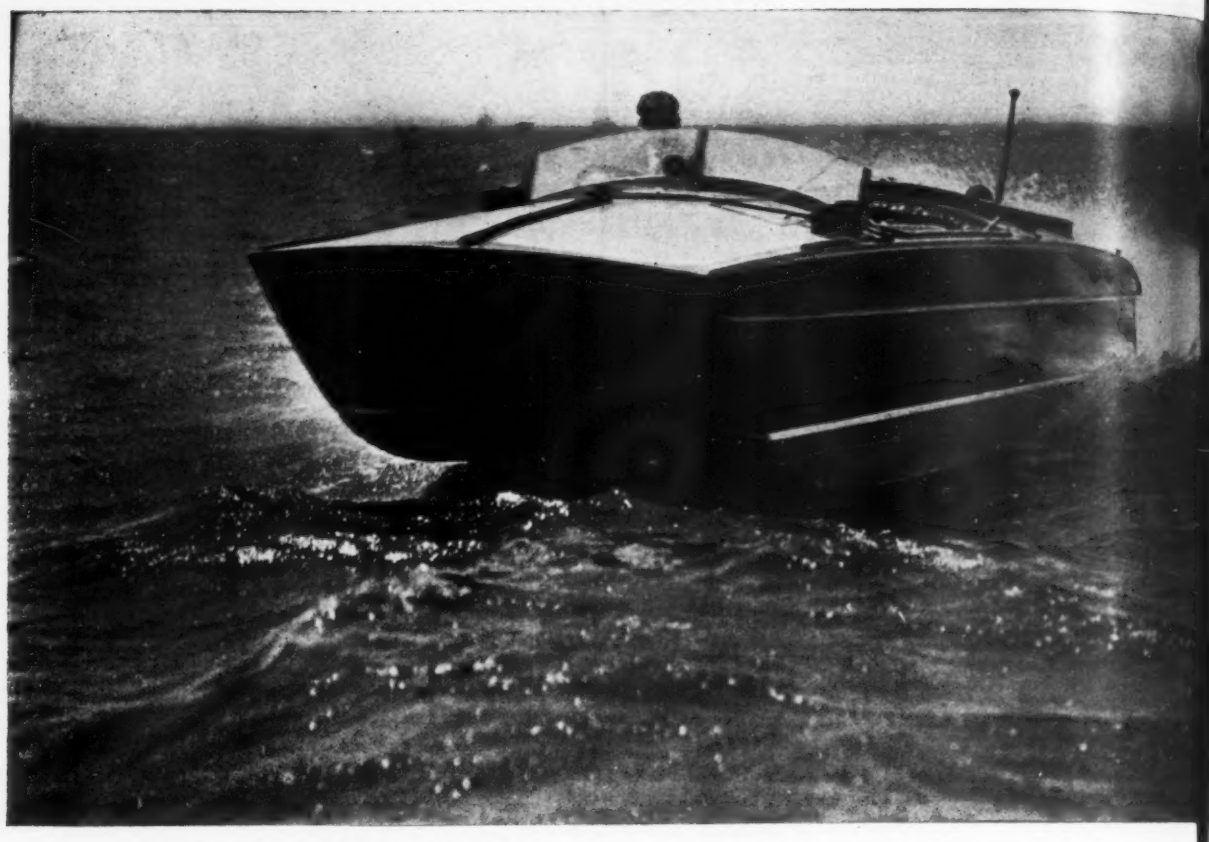
The Autopulse fuel supply device, which is designed to replace all other forms of gasoline fuel supply mechanisms

New Standard Catalog

The Standard Motor Construction Company issue from time to time, new editions of their bulletin, Standard Engine Practice, which describes the latest developments in boats and installations of their machines. A recent issue contains a very interesting description of their new oil engine, which operates at a very low rate of oil consumption. These engines are made in sizes from two cylinder and 42 h.p. up to six cylinders and 300 h.p. There are also interesting items concerning Standard engine equipped boats in all sections of the country. Copies of this bulletin can be secured from the company by addressing them at 176 Whiton Street, Jersey City, N. J.

(*Continued on page* 130)

Advertising Index will be found on page 148



Standard 25 foot Sea Sled runabout at 38 m.p.h. in broken water.
Engine Hall-Scott 200 h.p.

FLORIDA

WHETHER for use off the coast or on shallow weed infested inland waters, the performance of Sea Sleds is unequalled. Their staunch construction, unique design and high bow insures seaworthiness, dryness and comfort. The single surface propeller, a strong simple mechanical arrangement, with the highest efficiency and shallowest draft. The 1924 Gold Cup races at Detroit was won by RAINBOW IV. equipped with a single surface propeller.

Immediate deliveries. Write at once for literature describing the standard 25 and 22 foot Sea Sled runabouts.

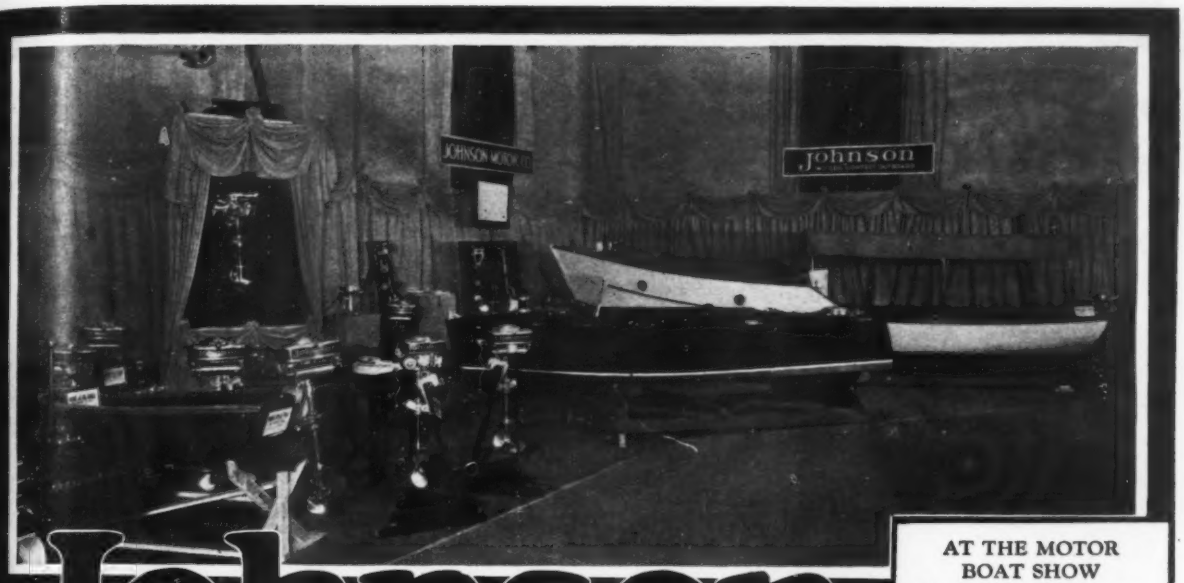
THE SEA SLED COMPANY, Ltd., West Mystic, Conn.

New York Office: 41 Park Row. Telephone Cortland 1575

Canadian Licensees: Canadian Vickers, Ltd., Montreal

Licensees for Great Britain and the Continent of Europe: Swan, Hunter & Wigham Richardson, Ltd., 21 Russell Square, London, W. C. 1, England

Advertising Index will be found on page 142



Johnson OUTBOARD MOTORS

GET INTO THE BOAT AND SEE FOR YOURSELF

AT THE MOTOR BOAT SHOW

The Johnson Exhibit at the National Motor Boat Show, Grand Central Palace, New York City, was one of the chief centers of interest at the show.

In addition to the big display of 1925 Johnson Outboard Motors was shown the "Outboarder", the world's first outboard motored cabin cruiser. This boat, whose only power is a standard Johnson Motor, cruised all over Long Island Sound and the Hudson, Connecticut and Thames Rivers last summer. What better proof could there be of Johnson Dependability?

The Johnson Twin for 1925 with 25 to 30% MORE POWER

and Johnson Shock-Absorber Drive

(which protects propeller and motor from submerged obstructions)

UNCHANGED in general design, the Johnson Motor for 1925, in addition to these two wonderful improvements, possesses all of the following unmatched Johnson features:

Johnson Exclusive Universal Steering and Reversing Device
Johnson Automatic Tilting Device
Johnson Float-Feed Carburetor (with choke for easy starting)
Johnson Quick-Action Magneto

Weight Remains 35 Pounds

In 1920, L. J. Johnson produced the first thoroughly dependable, economical water transportation for small boats.

He saw what was the matter with the crude outboard motors of earlier days. He applied true marine engineering principles to the outboard motor idea and achieved a type of performance never before approached.

Perhaps the most remarkable thing about his achievement is that he not only produced a completely dependable motor with undreamed of power, flexibility and adaptability, but he also produced a truly portable motor—weighing, complete, *only 35 pounds.*

And now—he has succeeded in increasing the already remarkable power of the Johnson Motor by 25 to 30 per cent *without increasing the remarkably low weight.*

In four years the Johnson Motor has assumed a commanding position in its field—*in 1924, dealers sold more Johnson Motors than any two other makes.*

Write for your copy of the Johnson Catalog or the name of the Johnson dealer nearest you.

JOHNSON MOTOR COMPANY

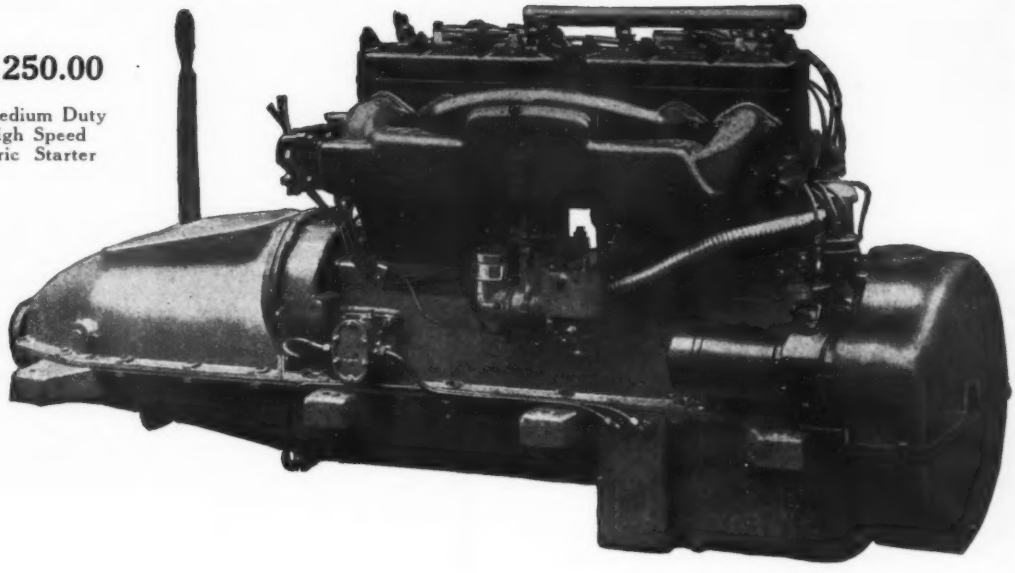
860 Sample Street, South Bend, Ind.

Eastern Distributor and Export: New York Johnson Motor Co., Inc., 4 West 61st Street, New York City, N. Y.
Canadian Distributor: Peterborough Canoe Company, Peterborough, Ontario.

Advertising Index will be found on page 142

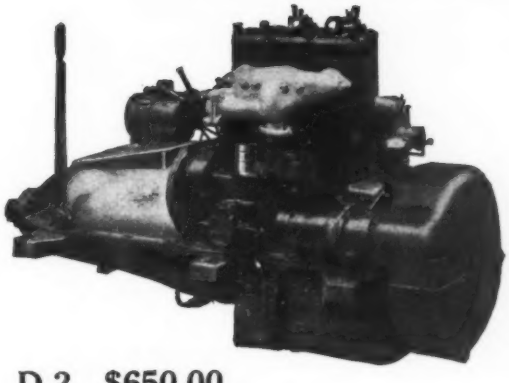
E-4 $1250.00

30-45 H. P., Medium Duty
45-70 H. P., High Speed
Including Electric Starter



would glance at the name plate and say "SCRIPPS—THERE'S A REAL ENGINE." And in the trade, word was quickly passed that "Everbody is talking SCRIPPS this year."

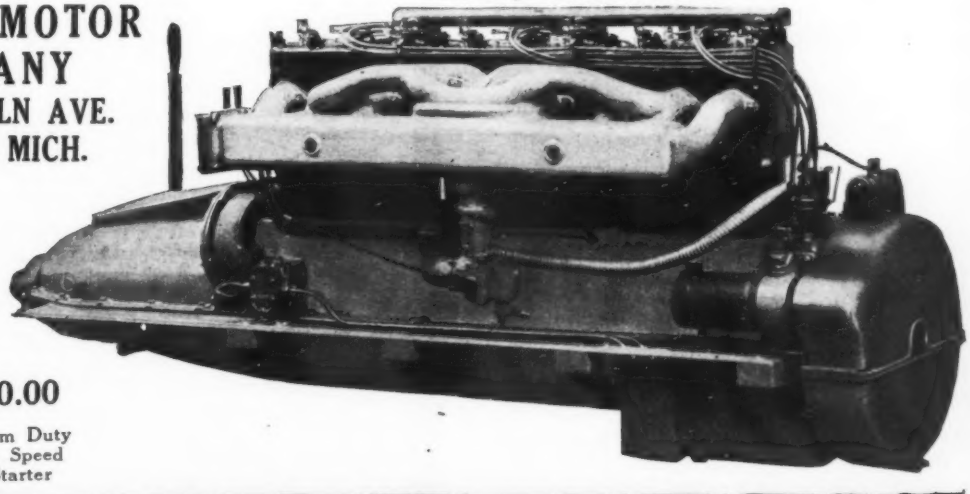
A good name, a good product and a fair price form a combination hard to beat. Select any engine in the SCRIPPS line and you choose a leader in its class.



D-2 $650.00

10-12 H. P., Medium Duty
15-18 H. P., High Speed
Including Electric Starter

SCRIPPS MOTOR COMPANY
5819 LINCOLN AVE.
DETROIT. MICH.



E-6 $1750.00

40-60 H. P., Medium Duty
65-100 H. P., High Speed
Including Electric Starter

Beneath the Southern Cross

(*Continued from page* 20)

of students had ascended to the crater on May 7th and reported it open to the northwest, so in case of an eruption, it would spout away from the city. And the head of the university had announced in the papers, that there was no more danger to St. Piérre than there had been to Naples during the eruption of Vesuvius. This same professor was found late the next day, boiled in his bathtub.

At quarter to eight on the fateful morning, the dreadful explosion occurred. The few survivors said the side of the mountain appeared to gape open and a gigantic jet of steam, molten cinders, flame, and asphyxiating gas rushed down upon the doomed city. I imagine it may have been like the Riverside Geyser in the Yellowstone—spouting sidewise. About 38000 in St. Piérre, and 4000 in the surrounding districts, perished *instantly*, burned, smothered, and struck down by the greatest volcanic disaster in history. A curious thing was that most of the people were burned in places where they had perspired; for instance, a man's foot would be completely burned off and his shoe untouched—due to the peculiar action of the gases from the volcano. One would naturally say: "Why did not the inhabitants leave, if they had so much warning?" There was no place to go. Fort-de-France was at that time only a military post and their homes, and businesses were in St. Piérre. A few did get away, among them one ship out of a harbor full, the others sunk at their moorings or engulfed by the tidal wave which rushed upon the town following the terrible eruption. Old Pelé sleeps serenely in the background, as if nothing had ever happened. A few people have come back and built again, and there is some talk of rebuilding the city, but if they do, I think they're fools.

We wandered about the ruins imagining in our minds the gay crowds that used to throng the Rue Victor Hugo, and the comely creoles whose beauty was famed in every part of the world. Now nothing, but crumbling stones and heavy vines, and solitude. There is a small jail where the sole survivor of the disaster was supposed to be imprisoned. Our friends in Fort-de-France maintained this to be an untruth. The vandal who claimed the distinction, and who later exhibited himself in the United States on the strength of it, was a ghoul, robbing the bodies of the dead at the time of the arrival of the first relief parties, and sought refuge in the cell when soldiers approached. His story was believed for a time. There were no survivors in the city itself.

We left St. Piérre, much sobered, and thoughtfully returned to Fort-de-France. But under the influence of several bottles of champagne, our spirits revived and we retired in a far more pleasant frame of mind.

We at last tore ourselves away from Martinique. We shall never forget her, nor she us, for many reasons. Ah! Martinique! Gem of the Caribbees! We're *surely* coming back to you some day! Your memories are too sweet!

The clouds may stoop from heaven,
And kiss the cheek
With fold on fold, of mountain or of peak,
But can't surpass my Martinique!

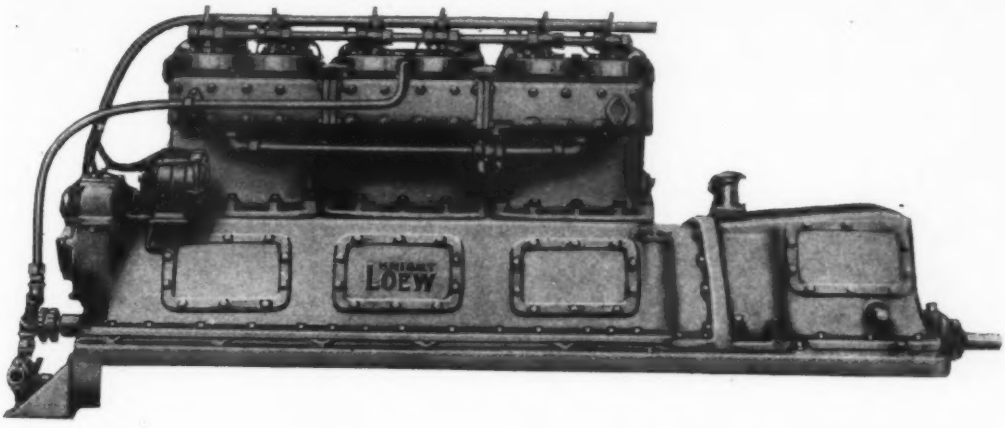
We were now surrounded by quarantine regulations on all sides and were warned that any islands that we might stop at between there and Trinidad were full of alastrim and would quarantine us because the other islands were also full of it, even Martinique! When we heard this we looked at each other askance, but said nothing. The run to St. Lucia was through very heavy seas, and to add to things, the tiller rope broke in the worst of it and Jack was forced to steer with the emergency tiller in the aft cockpit for the rest of the trip. We finally made the lee of St. Lucia and anchored in a pretty little bay called *Cul de Sac Marine* surrounded by palms and green hills. Some natives came out in a queer unstable looking canoe and begged for food.

The next morning off the southern end of St. Lucia we passed two remarkable looking rocks, or rather small mountains, which rose abruptly from the sea for over two thousand feet. They were the *Gros* and *Petit Pitons*, and looked exactly like the saw toothed ranges of the Tetons (curious analogy) in Wyoming. They were extraordinary and beautiful. The run that day was a terror. We always said that, but it did seem that the further south we went the heavier and rougher the seas became. Enormous waves rolled up under the quarter. Once three big ones came in succession and we started down them and then skidded sidewise. I thought surely we were going over. We tipped until the decks were awash, but she righted herself and sped on. We then put on our life preservers.

In an effort to steady her we rigged a sail to the signal mast, but so heavy was the wind that the cleats holding the guy wires to the mast pulled out of the deck and the mast fell down on our heads! We fastened the guy wires to the boat davits and

(*Continued on page* 102)

Advertising Index will be found on page 142



Loew-Knight Engines

THE SILENT KNIGHT—with its many decided advantages—brings to the marine field a

New and Better Kind of Performance

Silent—Longer Life

Smooth
No Vibration
No Valves to Grind
No Carbon to Remove

SPECIFICATIONS

Model	H. P.	Size of Cyl.	Dia. of Crankshaft	No. of Cyl.	R. P. M.	Weight
LKD-6	60-100	4¼ x 5½	2¾	6	1,850	1,250
LKG-6	150	5½ x 7	3¼	6	1,200	2,000
LKG-8	200	5½ x 7	3¼	8	1,200	2,400
LKM-4	60	6 x 9	4	4	600	3,200
LKM-6	90	6 x 9	4	6	600	4,200
LKM-8	120	6 x 9	4	8	600	5,000
LKMS-6	200	6 x 9	4	6	1,000	3,600
LKMS-8	280	6 x 9	4	8	1,000	4,200

THE LOEW MANUFACTURING COMPANY

Sole Licensee and Manufacturer of Knight Marine Engines

Madison Avenue and West 90th Street, N. W., Cleveland, Ohio, U. S. A.

EARL H. CROFT
Sales Division
Madison Avenue and West 90th Street, N. W.
Cleveland, Ohio, U. S. A.

Beneath the Southern Cross

(*Continued from page* 100)

one of the davits pulled out! Then to cap the climax, the tiller rope parted again, and there we were rolling around in a heavy sea without being able to guide her! For a few minutes things were pretty lively aboard, but we finally rigged the emergency tiller and made the lee of St. Vincent where we repaired the damage.

We passed St. Vincent and headed across for the Grenadines, scattered rocks and islands: Bequia, Mustique, Union, Cannouan, and Carriaçou. Behind us on the southern end of St. Vincent stood a curious sugar loaf mountain and behind and beyond that towered the Soufriere, another volcano which had wreaked terrible destruction at the time of the Martinique disaster. All these islands possessed their volcanoes, slumbering peacefully until perhaps in the distant future they would break forth once more to kill and destroy.

It was rough along the Grenadines, but the seas were easier and we made good time. We passed a curious rock called London Bridge and then traversed a channel marked on the charts as Kick 'Em Jenny. This surely was no misnomer. And then we came to Grenada.

We had hoped to make the town of St. George, but as it was almost dark we decided to put into a little harbor called Perseverance. Here again the natives came out to us in a queer looking craft and begged for food. The small craft in these waters are the frailest and tippiest looking I have ever seen. Nearly every one has a big rock in the bottom to steady it. They look as though they were hollowed out of logs. The little harbor where we anchored was almost entirely surrounded by hills, and was hardly more than large enough to swing the boat. That night we heard some one playing a guitar on the mountain above us, and singing.

(*To be continued*)

After leaving the harbor of St. George, in the West Indies, Captain Heilner on board the 47-foot motor boat Nepenthe II, sets out across the Caribbean Sea for Trinidad. They had a rough trip over, and several times feared that their little craft would be swamped in the heavy tide rips, at the mouth of the Orinoco River. They successfully accomplished a dangerous voyage from Atlantic City to South America in a small boat, and Trinidad was the end of their journey. The boat was shipped back north on board a steamer, while the crew remained, and explored parts of South America. They followed, on board a passenger steamer, and the further recital of their adventures on the return voyage will be found equally interesting and entertaining.

Paint Works Add to Forces

The New Jersey Paint Works of Jersey City, N. J., have added Richard Egedy to their sales force. Mr. Egedy previously represented John Lucas & Company in southern and northern New Jersey among the dealer trade, and is now covering the same territory in the interests of the New Jersey Paint Works, Harry Louderbough, Inc.

A New Tide Book

The 1925 copy of the Eldridge Tide & Pilot Book published by Wilfrid O. White, Boston, has just come to hand. This is the fiftieth year of the publication of this book.

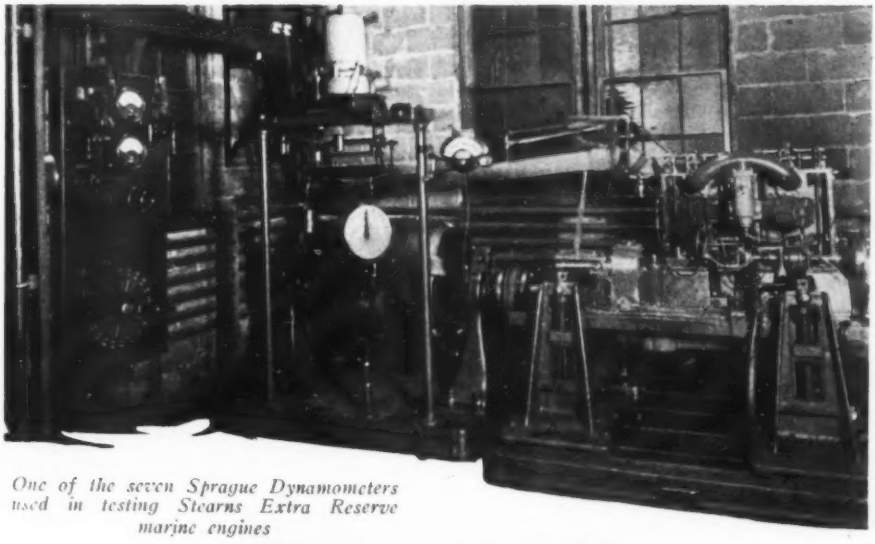
The early history of the book was that Captain Eldridge in the early seventies was selling a book on Compass Tests and also charts of Vineyard Sound and Nantucket Shoals, but the question that was asked him more than any other was, "What times does the tide turn to run to the Eastward or Westward at Pollock Rip?" He therefore set to work obtaining observations covering the turn of the tide, etc., at different points on the Shoals so that the next year he published a pamphlet covering Pollock Rip currents. This was the beginning of the Eldridge Tide & Pilot Book which still gives this information in the same practical form as when first issued.

Beside the information that Captain Eldridge published during his lifetime, Mr. White has added a great deal of matter to the book such as the principal Lights and Fog Signals between Bar Harbor and Baltimore, the principal Courses and Distances in this same area and especially covering New York harbor, Long Island Sound, Narragansett Bay, Buzzard's Bay and Nantucket Shoals, etc., and this year there has been added the International Code of Signals in colors with several pages of urgent and important signals so that with this book on board, it would be quite possible for a vessel to call for help in case of accident without referring to any other book.

This book will be found especially useful by yachtsmen as it combines several books in one volume.

Advertising Index will be found on page 142

Certified Power

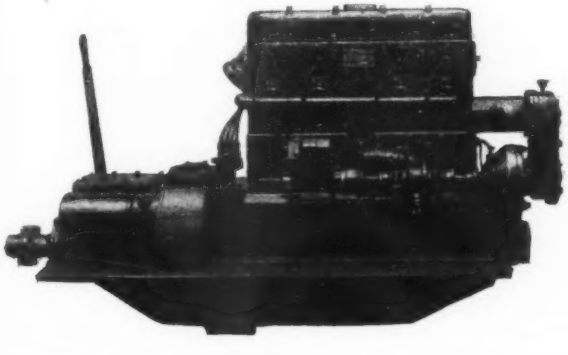


One of the seven Sprague Dynamometers used in testing Stearns Extra Reserve marine engines

EXTRA RESERVE STEARNS MARINE ENGINE

STEARNS power is real power, certified by repeated tests on the Sprague electric dynamometer, the most accurate and reliable testing instrument known to automotive engineering. No water brakes, no formulas, no testing an occasional engine, but several tests of each and every Stearns engine is our invariable rule.

The Stearns motor plant is equipped with seven Sprague Dynamometers. Few other marine engine factories have even one dynamometer, we know none having several. With seven dynamometers we cannot only test every engine, but we break it in under power, run it until it is tuned up under the eyes of experts, then tear it down, clean, readjust and reassemble it again and run it under load for several hours on the dynamometer. After passing these tests the engine is ready for many years of successful and uninterrupted service.



STEARNS MEDIUM SPEED ENGINES

MHU—4½" x 6" 25-50 H.P. at 500-1200 R.P.M. 1050 lbs. $990

MDR—5⅛" x 6½" 35-70 H.P. at 500-1200 R.P.M. 1750 lbs. $1390

STEARNS HIGH SPEED ENGINES

MHR—4½" x 6" 80 H.P 900 lbs. $1090

MDR—5⅛" x 6½" 125 H.P. 1300 lbs. $1550

Write direct to us for particulars or see our local dealer.

STEARNS MOTOR MANUFACTURING CO. Ludington, Michigan

DISTRIBUTORS

New York, N. Y., Bowler, Holmes & Hecker Co., Inc., 259 Greenwich St.
Detroit, Mich., Stearns Motor Mfg. Co., 3420 McDougall Ave.
Washington, D. C., Monarch Marine Construction Co., Sixth & Water Sts.
Cleveland, Ohio, Wm. F. Meier, 1433 West 77th St.
Wilmington, Calif., Fellows and Stewart
Chicago, Ill., W. L. Masters & Co., 800 N. Clark St.
West Palm Beach, Fla., George D. Raymond
Seattle, Wash., H. G. McLaughlin Co., Inc., 904 Western Ave.
Jacksonville, Fla., Gibbs Gas Engine Co. of Florida

Agents and Dealers in all Principal marine centers U. S. A. and foreign countries

MoToR BoatinG Books

All Published by MoToR BoatinG

119 West 40th St, New York

THE PRACTICAL SERIES

Six volumes, over 1,000 pages in all. Each book is fully illustrated with drawings and sketches. All the articles are written in simple language which any motor boatman can readily understand. They contain thousands of hints, suggestions and rules to follow in equipping and fitting out the boat and caring for both hull and power plant. The books measure 7 x 10 inches, are printed on fine paper and handsomely bound in cloth.

The books of the Practical Series are as follows:

Vol. 1 — PRACTICAL MOTOR BOATS AND THEIR EQUIPMENT
Vol. 2 — PRACTICAL MOTOR BOAT BUILDING
Vol. 3 — PRACTICAL THINGS MOTOR BOATMEN SHOULD KNOW
Vol. 4 — PRACTICAL MARINE MOTORS
Vol. 5 — PRACTICAL MOTOR OPERATION AND MAINTENANCE
Vol. 6 — PRACTICAL SUGGESTIONS FOR HANDLING, FITTING OUT AND CARING FOR THE BOAT

THE IDEAL SERIES

The books of the Ideal Series are as follows:

Volume I — DESIGNS OF IDEAL MOTOR BOATS, Edited by Charles F. Chapman

Volume II — HOW TO BUILD SIXTEEN IDEAL MOTOR BOATS, Edited by Charles F. Chapman

Volume III — TWELVE COMPLETE V-BOTTOM DESIGNS, by William H. Hand, Jr.

Volume IV — TWENTY EASY-TO-BUILD MOTOR BOATS, by William J. Deed and others

Volume V — PILOTING, SEAMANSHIP AND SMALL BOAT HANDLING, by Charles F. Chapman

Volume VI — WHERE TO CRUISE, by F. W. Horenburger
A new edition, just out, containing 56 complete motor boatmen's charts, principal light and fog signals of the Atlantic Coast, a large number of suggested cruises and much data of interest to the man who cruises.

Volume VII — BUILD A BOAT, by John L. Hacker and Charles D. Mower

Volume VIII — AMERICAN AND FOREIGN YACHT CLUB FLAGS
A new book just out showing in color flags of over 1,000 American and Foreign Yacht Clubs, flags in color of the Maritime Nations of the World, the International Code, Weather and Storm Signals, the Yacht Club Signal Code and several chapters on Yachting Etiquette, the Proper Flags to Fly, etc.

The Design Books of the Ideal Series all contain complete plans of cruisers, runabouts, auxiliaries, etc. The drawings are all large and reproduced to scale. In many instances, large blue prints accompany the descriptions. All plans are in detail enough to permit building from direct, either by the amateur or professional builder. No part of the boat's design or construction has been omitted. In addition to the plans, there is a description of each boat with many How-to-Build hints. Complete specifications accompany each plan.

See list of contents and description of Yachtsman's Guide elsewhere in this issue.

PRICES OF BOOKS

Ideal Series. Single Copies. Volume I to VI	$2.00
Ideal Series. Volume VII	3.00
Ideal Series. Volume VIII	1.00
Any five books of Ideal Series ordered together	7.50
Any six books of Ideal Series ordered together	9.00
All eight books of the Ideal Series ordered together	10.00
Practical Series. Single Copies. Volume I to VI	1.50
All six volumes of Practical Series	7.50
All 14 books books of the Ideal and Practical Series if ordered together	16.00

Postage prepaid in U. S. and Canada.

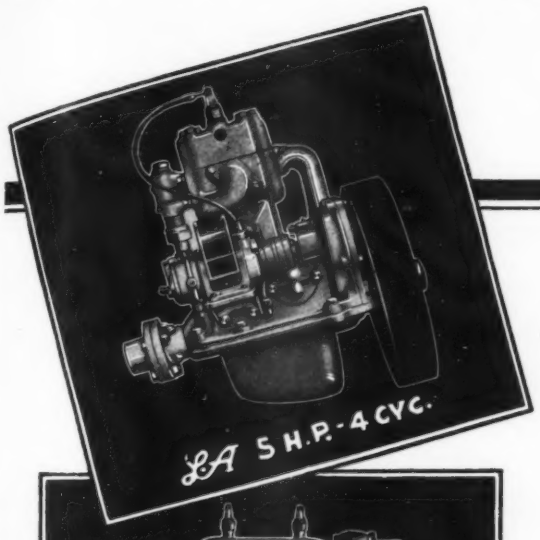
Foreign postage, single copies, 50c extra. $1.00 extra per set.

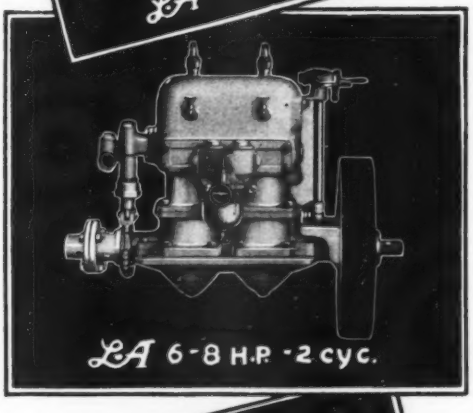
No books sent C.O.D. or charged.

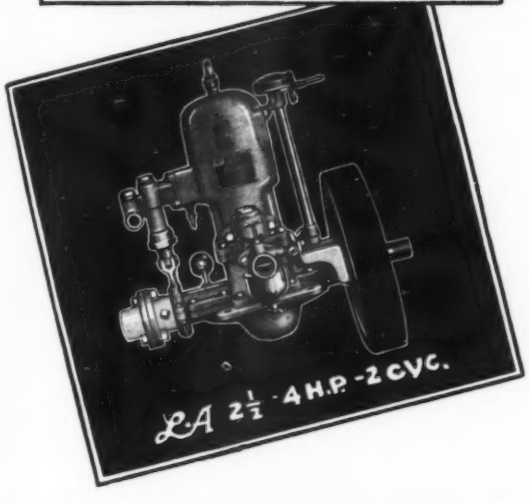
Send for circular describing books in detail.

MoToR BoatinG, 119 West 40th Street, New York, N. Y.

Advertising Index will be found on page 142







The LA Line for 1925

FOR 1925 the **Lockwood-Ash Motor Co.** will continue the models which found such favor in the marine motor field during 1924—the L-A Twin in the outboard class, and the Model 41, Model 68 and Model 24 in the inboard group.

These marine motors, backed by 22 years of sound engineering and reliable building, stand for the utmost in sturdiness and dependability. They are recognized by owners throughout the entire country as being reliable under all conditions of service, easy to operate and easy to maintain. Lockwood-Ash motors *make good* because they *are* good.

The Lockwood-Ash proposition to dealers is an interesting one. Write for complete information.

LA Twin

Lightest outboard motor per horse power on the market. Weighs 52 lbs. complete and develops full 3 H.P. Has most powerful magneto in outboard field; specially designed carburetor; rope and rudder steering (McNab-Kitchen rudder as an extra, if desired); indestructible gas tank; underwater parts made of non-corrosive aluminum alloy; quiet exhaust; Alemite lubrication. Automatic Tilting of friction type and patented L-A Slipping Clutch Propeller provide positive protection against damage from underwater obstructions.

LOCKWOOD-ASH
— MOTOR - LA - COMPANY —

512 Jackson Street Jackson, Michigan

Builders of Marine Engines for 22 years.

LOCKWOOD-ASH DISTRIBUTORS

BROOKLYN, N. Y.: Hyde Boat & Engine Co., 55 Fourth at Bergen St. NEW ORLEANS, LA.: Arthur Duvic's Sons, 122 Chartres St. PHILADELPHIA, PA.: Marine Engine Co. of Phila., Bourse Bldg. SEATTLE, WASH.: Pacific Marine Engine Company, 906 Western Ave. NORFOLK, VA.: Mianus Diesel Engine Co., 116 Boush St. NEWPORT, ARK.: Henry M. Owen. FORT WORTH, TEX.: Veihl-Crawford Hardware Co. JACKSONVILLE, FLA.: Burroughs-McMeekin Co., 30 E. Bay St. MONTREAL, QUE., CAN.: F. I. Mitchell, 633 Notre Dame St. E. ST. LOUIS, MO.: Wm. Grossman, 1630 Pine St. HARBINGER, N. C.: R. L. Gallop Hdw. Co. PORTLAND, ME.: Mianus Motor Sales Co., 19 Custom House Wharf. LOS ANGELES, CAL.: V. L. Walker, 1635 Kenmore Ave. FACTORY REPRESENTATIVE FOR PACIFIC COAST: Gordon Snedekor, 1217 J St., Sacramento, Cal. FOREIGN EXPORT OFFICE: 116 Broad St., New York, N. Y., Harold Fee, Mgr.

L-A MODEL 41 FORD PART ENGINE—Single cyl., 4 cyc. 5 H.P. Motor. Built around Ford sized parts—replacements anywhere. Has Bosch Magneto and Impulse Coupling as standard equipment. Battery ignition in place of magneto, if desired. Many desirable features. Weighs approximately 165 lbs. Detailed information on request.

L-A MODEL 68—6 and 8 H.P. 2 cyl.-2 cyc. Engines 6 H.P. for 15 ft. to 24 ft. craft. 8 H.P. for 20 ft. to 30 ft. craft. Equipped with battery ignition. Bosch Magneto and Impulse Coupling, if desired. Smooth running—easy starting—powerful—silent—clean—pleasing in appearance. Write for complete information.

L-A MODEL 24—2½ and 4 H.P. Single cyl.-2 cyc. Engines, 2½ H.P. for 14 ft. to 18 ft. craft. 4 H.P. for 16 ft. to 20 ft. craft. Equipped with Battery ignition. Bosch Magneto and Impulse Coupling, if desired. Simple—sturdy—easy starting—easily maintained. Ideal for inland lakes and rivers. Write for detailed description.

A Holiday in France

(*Continued from page* 24)

When the tide is high, the gates are opened and ingress or egress is available for shipping. But when the tide begins to fall the gates are closed and the depth inside is maintained at high tide level, so that the vessels remain afloat. A certain amount of leakage takes place (two or three feet) with the result that when the next flood tide comes to within an hour or two of its maximum height its level is that of the basin. The gates are again opened and are kept open until an hour or two hours after high tide.

For a yachtsman the advantages of the wet basin are these: His boat is in a central location and he may step ashore and aboard without trouble; he is protected from all winds and is out of the wash of other boats. These are the disadvantages: The basins are usually filthy, and the dust of the streets blows aboard; a boat has only two chances to leave each day and so the run to the next port cannot always be timed to take the best advantage of the currents.

So far as Adastra was concerned the advantages far outweighed the disadvantages. Delightful though Guernsey is, its harbor can be lively at times, and we wanted the novelty of an even keel. And then, we were within stepping distance of France, which neither P. L. nor I had seen since 1919, and for which she had hungered often and I had thirsted more than once.

Breakfast and then a shave, and shore clothes, and— What was that? A line under the boat? The watch buoy floating in the water? Oh, damn! That accounted for the squeak in the reverse gear. In failing to anchor when we had intended to the line from the watch buoy had remained overboard. When we had started up to enter the basin it had caught around the propeller and now we were in for a strenuous session.

Anyone who has cruised for any length of time in the tropics has a natural and almost unconquerable aversion to swimming elsewhere; but needs must when the wheel doesn't drive, and there was no alternative to going over the side. The water was so cold that I soon forgot its consistency. Diving down with a knife tied to my wrist, I unwound and cut what seemed like yards and yards of rope, and puffed and shivered and dived again.

Half an hour of this, while crowds lined the wharf and watched in amazement, and the wheel was clear except for the last two or three turns that are always on the tightest. These would wear themselves off with five or ten minutes of running, and I climbed aboard for hot coffee and scrambled eggs. We always have scrambled eggs after an adventure, and P. L. knows just how to cook them.

A few minutes later we heard a hail from shore, and, looking out, saw Colonel Cleaver and his cruising mate Mr. Campbell standing on the quay. They were going to have a *piquante*, and would we join them? We would, and it wasn't long before the four of us were sitting around a spindle-legged table on the sidewalk, watching the gobs streaming ashore from the American ships, and enjoying a sense of well-being and internal warmth.

An hour after that, when I had finally achieved my shave, we again heard the Colonel's voice from the quay, and this time he had an invitation from Admiral Andrews and Captain Evans of the U. S. S. Pittsburgh which he wanted to extend to us. The card read that the presence of Colonel Cleaver and his friends was requested on the Pittsburgh for an informal tea and dance.

Which is the way things should, but don't usually, work out for deserving yachtsmen. Two days before when he had first heard that American ships would be in Cherbourg on the Fourth I had had a vision of that invitation. P. L. had never attended an afternoon reception on a naval cruiser and I had said nothing about it, not knowing how the invitation would come, or whether we should reach port in time for it. But now because the Colonel was willing to call us friends we were admitted to the magic circle.

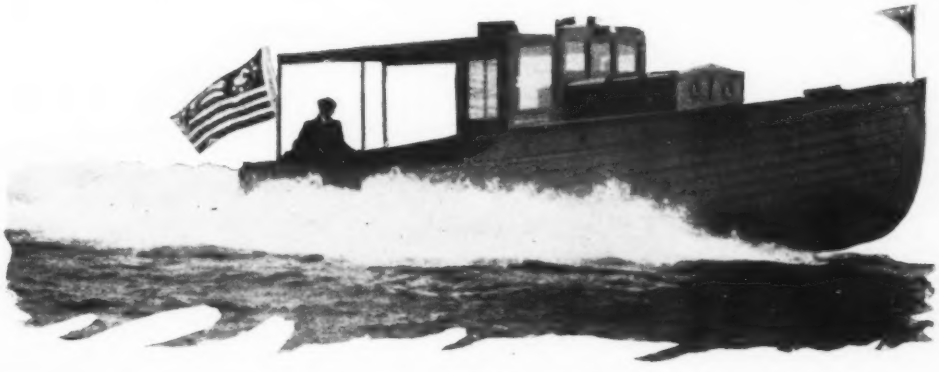
So for three hours we found ourselves again at home, dancing to American music (which really sounds pretty good in foreign waters) talking American talk, looking for familiar faces. Of all the company of American officers—young ensigns, who were still in high school when I last wore their uniform; lieutenants looking much more dignified than one would suppose; commanders and captains dancing with pretty French girls—there was none I had ever seen before. But I did know the Admiral. And he didn't know me.

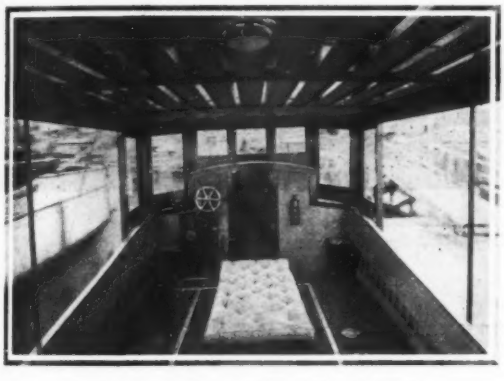
Our previous meeting took place in Venice, where, by the misfortune that pursues subalterns, I arrived when he was in residence. The regulations of the Navy are that when a junior officer on detached duty comes near a senior officer he must

(*Continued on page* 110)

Advertising Index will be found on page 152

Here is Cruiser Value Beyond Comparison





Looking forward in cockpit of Red Bank 30-foot cruiser. An exceptionally roomy cockpit for boat of this size.

THE Red Bank 30-foot standardized cruiser gives all the advantages of a fast runabout and the protection and conveniences of a cruiser. It is a boat of beautiful finish and has the comfortable accommodations and handsome appearance of a fine yacht. Built to the best standards of boat building, the Red Bank 30-foot standardized cruiser represents cruiser value beyond comparison, and is a most adaptable boat to any service.

50 H.P.—12 M.P.H.
Price, $5,000. Complete

100 H.P.—16 M.P.H.
Price, $5,500. Complete

200 H.P.—28 M.P.H.
Price, $7,500. Complete

Complete Hull, Fully Equipped, $4,000

We are the original designers and builders of the fast dory type cruiser and skiff that are now so popular.

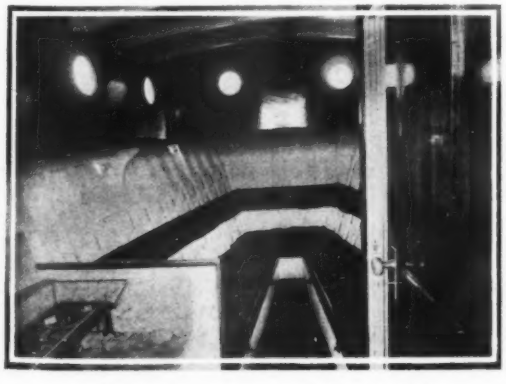
Write today for complete particulars

RED BANK YACHT WORKS

PIERRE A. PROAL, *President*

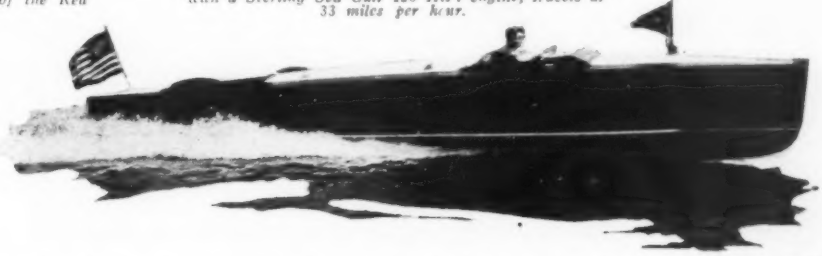
RED BANK NEW JERSEY

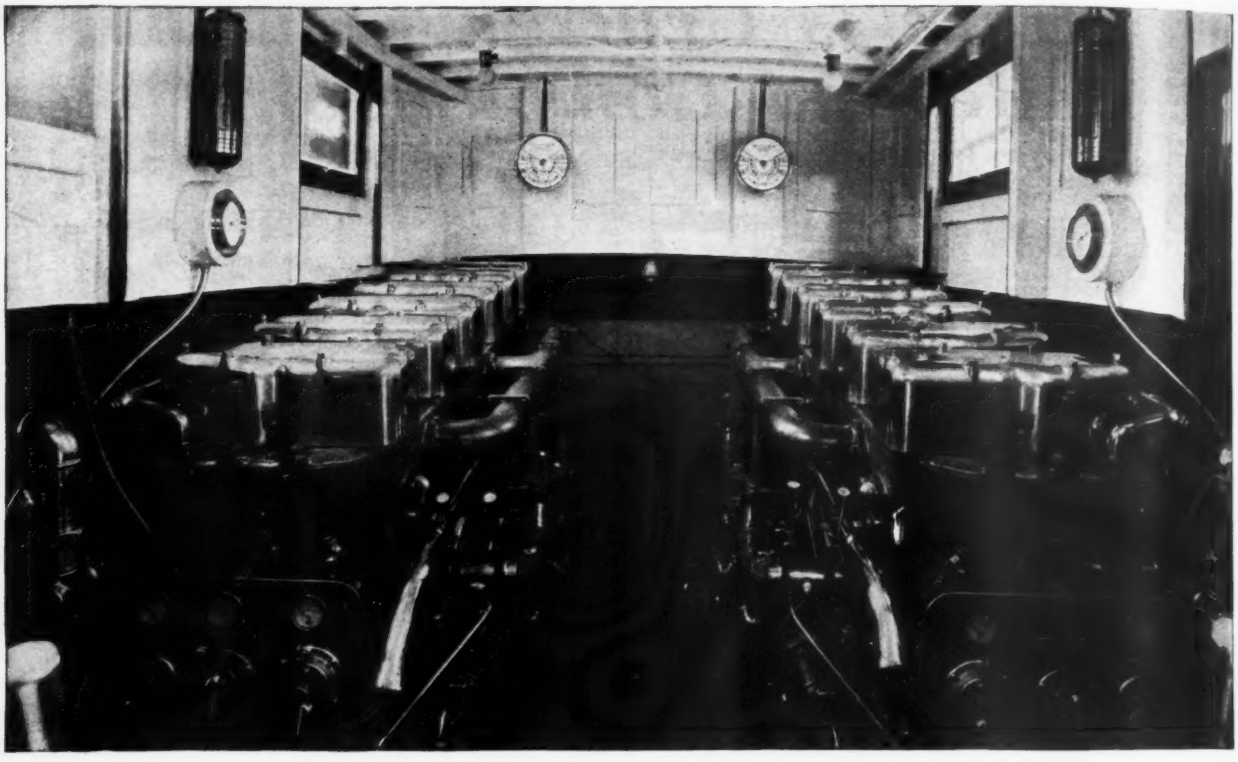
Telephone: Red Bank 840



A view of the cabin and galley of the Red Bank 30-foot cruiser.

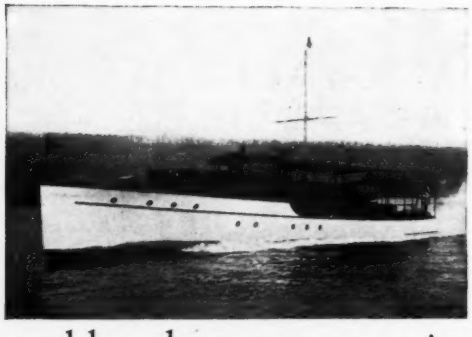
This mahogany V-bottom, double planked, Red Bank express runabout, built for Mr. Nelson Doubleday of Doubleday Page & Co., Garden City, and powered with a Sterling Sea Gull 150 H.P. engine, travels at 33 miles per hour.





A most popular power plant for the medium size cruiser operated in both Northern and Southern waters—two 300 H. P. Model R Speedway Engines.

Speedway Engines Win the Only *Vital* Race—the Race against Wear and Depreciation



IN THE LONG RUN, the quality of a product can be very accurately judged by the kind of man to whom it appeals. Speedway Engines for more than twenty years have been associated with leading yachtsmen—those whose experience best enables them to appreciate the hidden refinements of material and workmanship that produce the finest possible engineering job.

The Speedway owner knows that the work an engine is called upon to do in a pleasure boat is entirely different from that

Advertising Index will be found on page 152

which is expected in boats used exclusively for racing. No Speedway Engine has ever failed in service on account of structural weakness. Once installed, the Speedway owner can expect so many years of satisfactory service that the initial investment represents the most economical buy in the entire marine engine field.

A typical Speedway installation is the twin Model R 300 H.P. engine selected by Mr. J. B. Ford of Detroit for the Consolidated 85-foot cruiser Hiawatha, shown on facing page.

We have recently published an illustrated folder on the subject of Speedway Engines, showing seven of the most popular Speedway models and written in non-technical language. If you are planning the purchase of a new boat or the overhauling of your old one, the few moments required for the study of this folder may very easily make a world of difference in its performance and value.

We will be very pleased to send you our Speedway Engine folder free on request, or special bulletins devoted to any model Speedway in which you are particularly interested.

CONSOLIDATED SHIPBULDING CORP.

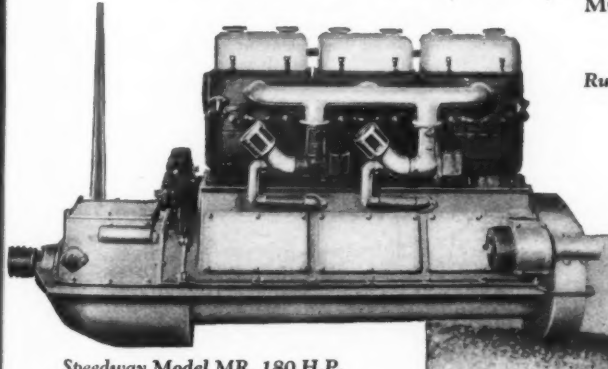
MORRIS HEIGHTS NEW YORK CITY

Designers and Builders of

Runabouts
Play Boats
Day Cruisers

House Boats
Motor and Steam Yachts
North and South Cruisers

SPEEDWAY ENGINE SALES DEPARTMENT
A. G. GRIESE, INC. 30 Church Street, N.Y.C.



Speedway Model MR, 180 H.P.

VERY few pleasure boats will ever be required to render such constant service under difficult conditions as the U.S. Coast Guard Picket Boats *in which Model MR Speedways are exclusively installed.*

The Picket Boat illustrated at the right was built by Greenport Basin and Construction Company.

A Holiday in France

(*Continued from page* 106)

report for orders or obtain permission to carry out the orders he has already received. So though the Admiral didn't want to see me, and I should much rather have seen the Palace of the Doges, or the Bridge of Sighs, I spent my only Venetian day waiting for an interview in the lobby of his hotel.

When P. L. and I were introduced to Admiral Andrews I told him what I knew about Venice in the days when the irreverent submarine chasers tried to tie up to the Rialto. The Admiral, his eye kindling at thought of the cherished, catastrophic chasers, told us something about the race that six of the best of them ran from Bermuda to New York in August of 1919.

"Let me see, now," he asked himself, "which boat was it that won the race?"

"The 131, sir," I answered, proudly, "she made the world's motor boat record for the course"—and I should have been superhuman if I had refrained from telling him what else I knew about the 131.

No entries were made in Adastra's log of this most delightful Fourth, and my memory is none too good. But glimpses of it come to mind . . . More dancing to American fox trots, and no one cutting in because we had been introduced to none of the other dancers . . . . The run back to town in the gig, and the familiar, circumscribed view of rushing water beneath the gray, stiff curtains. The song of the bells as the coxswain signals to the engineman—assured, unhurried bells and the quick response of the propeller. Expert, nonchalant youths at bow and stern reaching careless boat-hooks to crevices in the landing steps; a ting-a-ling in the engine-room. We step ashore and are once more out of the Navy . . . French and American flags intertwined on the facades of buildings and flying from the shipping. "Istar ahoy," called from the quay, and an English seaman rowing jerkily to fetch us . . . Cognac in the spacious main saloon, and boat talk. *Au revoir* until we reach Deauville, and then ashore again. Dinner at the hotel with deft service and the superb French way of preparing food. Cointreau and cigarettes . . .

We enjoyed that day. Though Cherbourg may be (and is) a dirty hole shunned by knowing yachtsmen, we enjoyed it. It was a day in France, and a day in America, and a day at sea, and a half hour in the cabin of an Englishman whose love of blue water thrills his hearers. Yes, you may write it down as a day.

And now, for the sake of contrast, let us return to the steamship Majestic and examine into the fate of the Americans who arrived in Cherbourg simultaneously with us. Who were they in the eyes of the customs authorities? They were objects of suspicion. Did they have their landing cards properly filled out? And their passports? Was there any tobacco in their luggage? Or matches? If so, did they imagine for an instant that they could land without paying duty?

Altogether an onerous business for a rich American tourist to gain admittance to la belle France.

But Adastra. Flying the American flag, she breezed in without a pilot, tooted her horn and passed into the *bassin-a-flot*, disembarked her crew on the sacred soil, all without fuss, feathers, or formality. It is truly a privilege to be a yachtsman.

The following morning, to be sure, when it was no longer the Fourth of July, a courteous gendarme begged *Monsieur le capitaine* to accompany him to the custom house. And there, after a few questions in French which *Monsieur le capitaine* was unable to understand, and a few answers in English that quite escaped *Monsieur le douanier*, Adastra was given carte blanche to enter the ports of France until the end of time. There was a fee of twelve francs—sixty cents—an exchange of compliments, and that was all. No request for a passport, no landing card, no inspection of the yacht.

Such treatment, generous though it is, is no more than a yachtsman expects. But to the mere tourist, who comes to a foreign country in a cabin twice as big, ten times as luxurious, and forty times as expensive as the cabin of Adastra, it must seem like rank discrimination. Whence another tedious explanation is necessary.

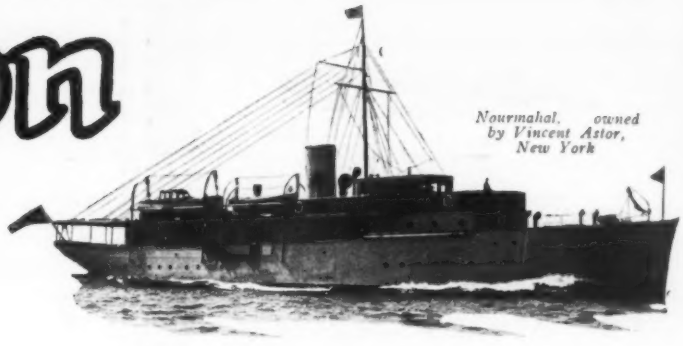
The last time you were on an ocean liner (and likewise the times before that) you probably noticed that her captain was a man apart. He was responsible for lives and property, and if he hadn't been such a big, competent fellow his brow would have been lined with care. People looked up to him, honored him, stepped aside to let him pass. He was a king in his own right—the right of skill, knowledge, and vast experience.

You may have noticed also that when he came to port he stepped ashore without an aye, yes, or no to anybody. No one asked him whether he had a prison record or a contagious disease or an empty pocket. He was always the superman, the master.

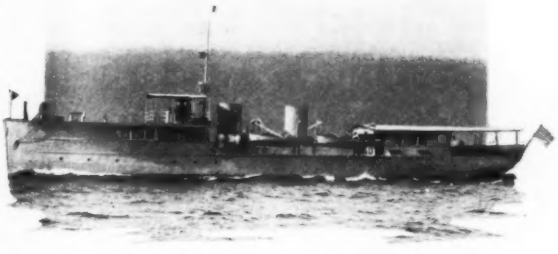
(*Continued on page* 112)

Advertising Index will be found on page 142

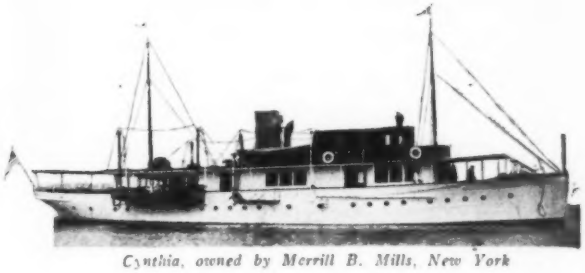
Winton



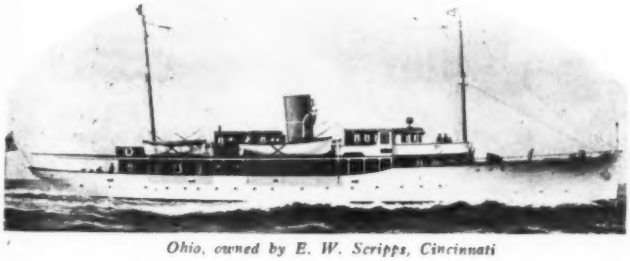
Nourmahal, owned by Vincent Astor, New York



Sabalo, owned by Van Lear Black, Baltimore, Md.



Cynthia, owned by Merrill B. Mills, New York



Ohio, owned by E. W. Scripps, Cincinnati

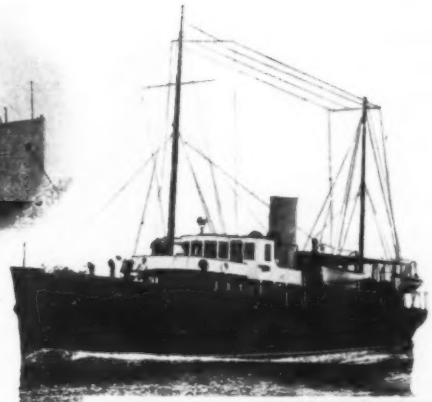
IN the operation of these Yachts, in severest weather, under all kinds of conditions, Winton Full Diesel Type Engines have proved their Economy, Reliability, and all-around Superior Performance. And because they continue, day after day, in actual service, to show convincingly their exceptional merit and excellence, they are preferred by yacht owners, marine architects, and engineers, who demand the most efficient type of marine propulsion.

Specifications and complete details gladly supplied upon request.

WINTON ENGINE WORKS
CLEVELAND, OHIO, U. S. A.

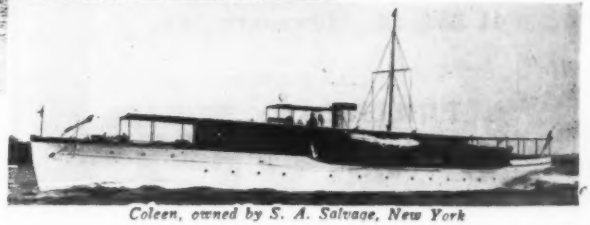
New York,
A. G. Griese,
30 Church Street
Los Angeles,
E. G. Bryant,
201 F. W. Braun Bldg.
New Orleans,
A. Baldwin Company
Washington
R. L. Fryer,
430 Transportation Bldg.
Seattle,
H. W. Starrett,
Sunset Engine Company
Boston,
Walter H. Moreton Corp.,
780 Commonwealth Ave.
F. C. Erdman Co.,
Union Trust Bldg.,
Cleveland, Ohio

Ara, owned by E. B. Dane, Boston



Dolphin, owned by Mortimer L. Schiff, New York

Pawnee, owned by H. S. Wilkinson, of New York.



Coleen, owned by S. A. Salvage, New York

A Holiday in France

(*Continued from page* 110)

And that is exactly the status enjoyed by the captain of a yacht. He has dignity, responsibility, and integrity. He never smuggles and he always speaks the truth. He comes and goes a free man, and foreign nations are honored in admitting him to their strands—which ends the tedious explanation and, I hope, paints the yachtsman in his true colors.

Following the satisfactory interview with the customs officer, there came a short chat in French and English with the harbor master, to whom we paid five francs for the privilege of lying in the wet basin. Following that—for such international conferences are slow—it was eleven o'clock, and time to pass out of the basin and into the outer port. The yacht Istar had left Cherbourg for Le Havre at six o'clock and her mooring was available to us.

The day passed in desultory pursuits—shopping, lunching ashore in a family restaurant, watching the American running boats at the landing steps, and sleeping. Then at seven forty-five p. m. we got underway for Trouville, for we had now come to a point in our cruise where we were no longer free agents. We were at the mercy of those merciless tides that one reads about in the best sea fiction, and we had to arrange our program to suit them.

Trouville lies on the coast at the entrance to the Seine, across the river from Le Havre. It is, therefore, some seventy-five miles east of Cherbourg. Its harbor dries almost bare at low water and the wet basin may only be entered when the tide is high.

Adastra, having left the basin at Cherbourg, was free to start at any stage of the tide, and if she had been a ten- or even a nine-knot boat we should have left at low water and arrived at Trouville seven hours later, carrying a fair tide all the way. (The tide makes to eastward in the Channel, and hence is an hour later at Trouville than at Cherbourg.)

But as Adastra is only a seven-knotter at best, we had to figure on ten or eleven hours for the run of seventy-five miles. That meant bucking the ebb and carrying the flood—splitting fifty-fifty on the currents. Had other circumstances been propitious, we should have left port at high water at 11 p. m., planning to arrive the following noon. But that trick could not be played because of the joker in the pack—the tidal race off Cape Barfleur.

Leaving at high water, we should have encountered a contrary current off Barfleur almost as swift as Alderney Race, and we might have wasted six hours skirting ten miles of coast. Our only recourse, then, was to depart on the half flood and carry the current around Barfleur. After that we could jog along easily, having twelve hours to devote to some fifty-five miles of running.

So the start was made at 7:45 in the evening, and at 8 we were clear of the roadstead and abreast the fortified jetties. Then we shut off the motor and made all sail. What wind there was blew off the land, and the sea was smooth. The sky looked none too satisfactory, but there is advantage of beginning a run at night: no matter what may happen during the hours of darkness, daylight is only just over the horizon, and daylight always brings new determination, fresh hope—and breakfast.

A bunk was made up aft for Barkham so that he might sleep dry and be ready to hand in case of dirty weather, and as soon as we had made sail he turned in and dropped off with the true sailor's adaptability to sea routine. P. L. and I remained on deck together, she for the most part at the tiller and I watching the changing bearings of the shore lights and suiting our sail spread to the rising wind.

For as soon as we were clear of the land the wind rose and sent us running dead before. On the cruise of Hippocampus we once sailed for three weeks without feeling the wind abaft the beam, but on this less ambitious venture we have had fair winds aplenty. While I wish for them when we are beating, I must say that I always resent them a little when they come. The ideal wind blows with a force of twenty-five miles an hour from precisely three points abaft the beam, and that ideal, like others, is but rarely attained.

As the wind rose the strain on Adastra's tiller became too great for comfort, and so the mizzen was furled and put in stops. Then the forestaysail, blanketed by the main, commenced rattling its sheet blocks against the lee running light, and that was furled and triced up off the deck. At 10:45 we rounded Cape Barfleur, still carrying the tide, and changed course to southeast, which brought the wind on our starboard beam. But before that change was made two reefs had been rolled down in the main so that the little vessel might be under easy control when it came to standing solitary watches.

Sailing without the mizzen and with the big No. 1 jib balancing the reefed main, we now found ourselves afflicted with a slight lee helm, and as by this time the sea had become

(*Continued on page* 120)

Advertising Index will be found on page 142

Advertising Index will be found on page 142

Necessities

(*Continued from page 28*)

of sea room, Tern could ride out any gale that ever blew.

Secure in this knowledge, he abandoned himself to the physical exhilaration derived from the consciousnes of supremacy over the elements. It seemed as if the spirit of the tempest entered his own and gave him strength.

So occupied was he with his thoughts that he did not notice Marshall until he boy touched his shoulder.

"Coffee is ready, Dad."

Vance searched his son's face as he turned the wheel over to him. The boy dropped his eyes.

"I'll be back in a few minutes," said Vance.

"No hurry," Marshall replied, "I can handle her. We're hove to, aren't we?"

"Yes, just hold her steady as she lies."

Vance smiled as he poured himself a cup of steaming hot coffee in the galley a few minutes later. He felt something like a new commander watching the tide of defeat being suddenly stemmed by the confidence his stern authority has inspired within his ranks.

By midnight the storm had reached its zenith of fury. Sky and sea seemed suddenly to unite themselves for one final assault upon the staunch little Tern. The wind streamed through her tortured rigging, shrieking in a hideous, minor key. Comber after comber launched themselves upon her, cuffing her savagely as she rose to meet them, and smothering her when she tried to dodge them. The climax of fury reached, the sky seemed to open and pour its contents upon the yawl, as if to crush from above what it had been unable to destroy from below. Tons of fury-whipped rainwater poured upon the two men. It struck the deck with the staccato roar of a battery of machine guns, rebounded and lashed the two men with savage blows. It filled their mouths, ears and nostrils. They breathed with difficulty.

Then, as quickly as it had come, the squall passed astern and tore South, hammering the crested seas into submission as it went.

A little later when Vance returned from a trip to the cabin to fill his pipe, the inky pall to leeward was pierced, suddenly, by a stab of light.

"What's that?" Marshall cried out from the helm.

Vance's pipe dropped from his lips, and went spluttering into the cockpit.

"A rocket," he said. "Ship in distress." With a quick movement he reached for the jigger sheet and slacked it out. "Port your helm, while I go forrard and ease the jib sheet," he shouted over his shoulder, as he made his way along the slanting deck to windward.

As the yawl ran down the wind, another rocket rose out of the black pit of the sea, dead ahead, this time.

Returning aft, Vance took the helm from his son's hand. Another bright flare illumined the sea, ahead. It did not rise, this time, but remained stationary.

"Flarelight," said Vance. He handed the wheel back to his son, and went below. From the lamp locker he took a handfull of waste, which he soaked with coal oil, and attached to a piece of wire. Then, he struck a match, set fire to his improvised torch, and returned on deck, waving it above his head. The signal was seen and answered by the strange craft, now less than a mile ahead.

When they drew near, they saw that it was Westwind. Both the schooner's masts were gone. The foremost had broken flush with the deck. To the ten foot stump of the mainmast the flarelight was tied. The crew were cutting the tangled rigging adrift, by this light.

Vance approached the wreck cautiously, and swung Tern around the stern of Westwind, then luffed up and hove to at a distance of a hundred yards.

"Westwind, ahoy!" he sang out. "This is Tern! Are you foundering?"

"Not foundering!" Halliday bawled back. "Being smashed to pieces. Rudder broke. Can't call Point Firmin. The aerial went over with the spars."

Vance turned to Marshall.

"Go below and start the engine. You know more about gas-engines than I do," he added with a smile. He cupped his hands against the storm. "Ahoy, there Westwind, stand by to pass me your towline."

"What?" McTeal, the skipper, boomed at him. He turned to the banker beside him. "The man's daft." To Vance he megaphoned: "You can't budge this schooner with that flivver. Stand by and take us off, before we sink. No use trying to tow us."

"Not going to try to," Vance came back. "You're going in under your own power. Start your engines half speed, and I'll keep you on your course with the towline."

In the smoking room of his club, late the following night, Halliday was giving the details to Warren Hazlitt, President of the Pacific Coast Marine Underwriters.

"And what d'you think Vance said when I asked him if he was going to claim salvage? Told me to go to Hell!" he finished, triumphantly. "That isn't all. When he heard that I had fired McTeal, he comes back at me with a request for the berth as skipper of Westwind on a four-year contract! Can you beat it? Slated for cashier of one of the biggest banks west of Chicago, and he throws up his prospects, and takes a skipper's berth at three hundred and fifty a month! What d'you make of it, Hazlitt?"

Warren Hazlitt tapped his head, significantly.

"Exposure and lack of sleep. I've heard of cases like that before. When he wakes up tomorrow he'll think better of it."

Halliday regarded the glowing end of his cigar, thoughtfully.

"I wonder!" he mused. He sighed. "I had just about made up my mind to enter Westwind for the transpacific schooner race to Honolulu next spring, after I get the new spars put into her. From the way Vance handled that little yawl of his, I figured that he'd have a good chance to grab the cup."

At that precise moment, before the fire in the living-room of Vance's house, Colinne and her mother were listening to a calm, dispassionate recital of facts. In the silence that followed, Mrs. Vance ran her bejeweled hand absently over the silken tassels of her opera cloak, unable to believe her ears.

"You resigned your position at the bank for a—skipper's berth at three hundred dollars a month?" she finally found words to blurt out. "Have you lost your senses, Edward?"

"Not lost them—found them," Vance corrected.

Colinne moved toward the door. "Another family row," she announced, stifling a yawn. "Excuse me, folks, I'm going to bed."

Mrs. Vance shot her husband a vitriolic glance.

"You've thought it all out, I see," she remarked, icily, as the full realization burst upon her.

"Yes," he replied, a little wearily, "I've—thought it—all out."

Mrs. Vance's chin went up.

"You've persuaded Marshall to join you in this—insane venture?"

"I have persuaded him to nothing, Emma. Go and ask him yourself. I signed the four-year contract on his account, that's true. At the end of that time, under my instruction he will be a full-fledged navigator. If he doesn't care to follow the sea, but decides to go into business, he'll at least have an honorable profession to fall back upon—as I am doing now."

Mrs. Vance's face was working.

"You've turned my son against me! You brute—you cheat—"

She got no further. In the open door stood Marshall. The boy's eyes were blazing.

"Don't you call my father a cheat!" he stormed. "He's square. Everybody on the street says so. Me, you and you, Colinne, are the cheaters—taking everything from him and giving nothing in return! Everybody but us appreciated him—!"

"Marshall!" Vance took a step toward his son, hand raised in admonition. The boy brushed him aside.

"I don't care!" he went on, furiously, "she called you a cheat." He turned upon his mother and sister beside himself with passion.

"D'you want me to tell you how he fought the gale, last night, while you two were asleep in your beds? How he saved the lives of eight men at the risk of his own, and brought a wrecked schooner to port in the teeth of a hurricane." He paused for breath. "But what's the use? You wouldn't understand! If I told you that the man you're calling a cheat refused to accept salvage when he could have collected a cold fifteen thousand dollars, it'd mean nothing to you! I'm through! Through d'you hear!"

He swayed forward, spent by the fury of his emotion. Vance caught him by the shoulder.

"Go to your room, Son," he said, softly. Gently, he pushed the boy through the door and closed it after him.

Vance looked at his wife and daughter in silence a half quizzical smile upon his tired lips. His wife picked up her opera cloak from the floor where it had fallen and left the room with a toss of her head. Without a backward glance at her father, Colinne followed her mother up the stairs. Vance stood looking after them for a moment as if lost in thought. Then he dropped into his chair by the grate, leaned back and closed his eyes.

The fire had turned to gray coals when he finally arose and went to his son's room. He stayed beside the sleeping lad for only a moment, but when he emerged he was not alone. Someone, a stranger—his lost faith—was walking up the broad staircase beside him.

"... all of Hubbard H. Erickson & Co.'s. products have stood the continuous service and in many cases misuse without any evidence of wear or defects in workmanship or materials coming to light."

Rochester Boat Works, Inc.
B. C. MEIER, President


Mahogany Flag Pole and Electric Stern Light


Spark and Throttle Controls


10" Cabin Control Electric Searchlight

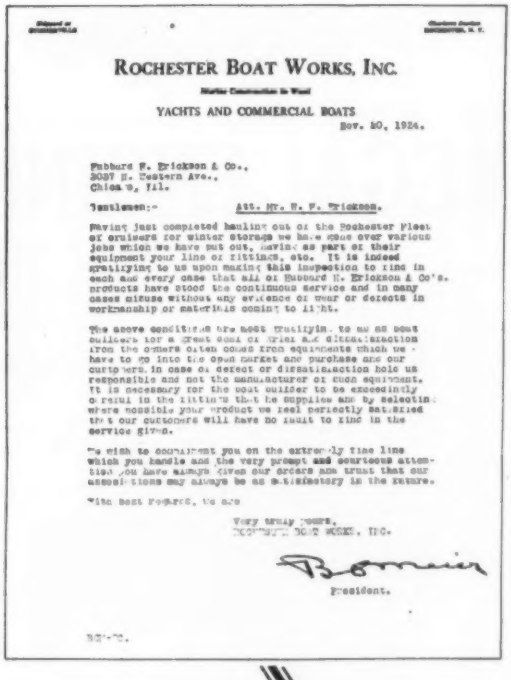
Combination Bow Plate


Mast Hinge


Mooring Bitt


Universal Shaft Log


Double Bracket Lamp



ROCHESTER BOAT WORKS, INC.

YACHTS AND COMMERCIAL BOATS

Nov. 20, 1924.

Hubbard H. Erickson & Co.,
3037 N. Western Ave.,
Chicago, Ill.

Gentlemen:- Attn. Mr. H. H. Erickson.

Having just completed hauling out of the Rochester Fleet of cruisers for winter storage we have gone over various jobs which we have put out, having as part of their equipment your line of fittings, etc. It is indeed gratifying to us upon making this inspection to find in each and every case that all of Hubbard H. Erickson & Co's. products have stood the continuous service and in many cases misuse without any evidence of wear or defects in workmanship or materials coming to light.

The above condition are most gratifying to us as boat builders for a great deal of trial and dissatisfaction from the owners often caused from equipments which we have to go into the open market and purchase and our customers in case of defect or dissatisfaction hold us responsible and not the manufacturer of such equipment. It is necessary for the boat builder to be exceedingly careful in the fittings that he supplies and by selecting where possible your product we feel perfectly satisfied that our customers will have no doubt to find in the service given.

We wish to congratulate you on the extremely fine line which you handle and the very prompt and courteous attention you have always given our orders and trust that our associations may always be as satisfactory in the future.

With best regards, we are

Very truly yours,
ROCHESTER BOAT WORKS, INC.

President.

BC:TD.

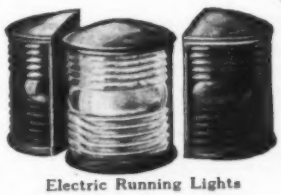
EVEN tho the boat builder exercises no direct control over the manufacture of equipment and accessories, the boat builder must stand the brunt of complaints should the equipment not give service to the complete satisfaction of the boat owner. That's why ERICO Accessories are found on all boats that do give complete satisfaction.

Write today for ERICO 1925 catalog

HUBBARD H. ERICKSON & CO.

ERICO MARINE SPECIALTIES

3037 N. WESTERN AVE. CHICAGO, ILL., U.S.A.


Electric Running Lights

Methods of Compass Correction

(*Continued from page* 35)

N E by E ½ E. on the vertical scale, in a direction X Y, parallel to the *plain* lines. This direction line cuts the curve at Z; through the point Z lay the parallel ruler edge in a direction V W, parallel to the *dotted* lines. The intersection of the line V W with the vertical scale indicates the desired course by compass, in this case N E ½ E. In actual practice it is not necessary to disfigure the diagram by drawing lines on it, simply note the point Z and the reading of the intersection of the return line V W with the vertical scale.

The doggerel of the old sailor will assist the memory in determining which system of lines to parallel in each case—the *plain* or the dotted: "If you wish to steer a course allotted, go out by the *plain* and return by the *dotted.*"

Procedure of Observations

Following is a list of the ranges in the order plotted on the Napier Diagram; of the magnetic bearing of the ranges scaled from the chart; of the compass headings of the boat on the various ranges assumed in this case, and of the resulting differences or deviations.

Deviation Table

A	*B*	*C*	*D*
Range No.	Magnetic bearing of range from chart.	Compass heading of boat on range.	Difference deviation
1	N. ⅛ W.	N. ⅞ W.	¾ Pt. E.
2	N. N. E. ½ E.	N. by E. ½ E.	1 Pt. E.
3	N. E. by E.	N. E.	1 Pt. E.
4	E. by S.	E. ½ S.	½ Pt. E.
5	S. E. ⅝ S.	S. E. ⅞ S.	¼ Pt. W.
6	S. ⅛ E.	S. ⅜ W.	½ Pt. W.
7	S. S. W.	S. S. W. ¾ W.	¾ Pt. W.
8	S. W. by W.	S. W. by W. ¾ W.	¾ Pt. W.
9	W. N. W. ¾ W.	W. N. W. ¼ W.	½ Pt. W.
10	N. W. ¼ N.	N. W. ¼ N.	0 Pt.

To illustrate the procedure let us take range No. 2 Left tangent of Turkey Point, Elk River, in range with Rocky Point, the correct magnetic bearing of which is N N E ½ E scaled from chart. The boat is headed on this range for several minutes and the course by boat compass recorded, in this case N by E ½ E. Then the difference between the correct magnetic bearing of the range, N. N. E. ½ E. and the boat's head by her compass when running on the range, N. by E. ½ E. is the error of the compass or the deviation, in this case one point Easterly. This error is named East or West, depending upon which direction the north point of the compass card is drawn by the iron in the vessel from correct magnetic north.

The old sailors Rule of Tree helps one to remember whether to name the deviation E or W, taking the four letters of the word *TREE* as the first letter of the words, *T*rue, *R*ight, *E*rror, *E*ast; that is, when facing the direction of the course, if the correct magnetic course is to the right of the compass course, the compass error is East, and vice versa, if the correct magnetic course is to the left of the compass course the error is West. In this case N. N. E. ½ E., correct magnetic course is to the right of N. by E. ½ E., compass course, and the error of the compass therefore East.

This procedure is continued until the boat has been headed on the ten ranges; the compass errors obtained for all headings, and recorded in the Deviation Table column D.

Another Simple Method of Making the Observations

The following method may be used to advantage by a boat equipped with a pelorus and a compass graduated in degrees from 0 to 360. The writer employed this method with very satisfactory results on a vessel 225 feet in length.

This vessel sailed from Baltimore, bound for the New England coast, after having been in a shipyard for several months, and the compass errors therefore being entirely different from what they were before going to the shipyard. It was intended to, swing ship, when passing down Chesapeake Bay that afternoon, using the sun. A heavy thunderstorm prevented, so the vessel was swung after dark, using a combination of two methods — bearing of a distant object and a range.

The vessel steamed successively on 16 headings across the range of Smith Point Lighthouse, Chesapeake Bay, and the lighted buoy 6½ miles to the southward, and the bearing of this range as it was crossed obtained on each heading by pelorus compared with the compass. For the correct magnetic bearing of the range the mean of all the compass bearings was used. In that way the deviations were obtained by comparing the bearing of the range on each heading with the mean bearing. This mean compass bearing was found to agree with the magnetic bearing of the range as scaled from the chart.

It is evident, therefore, that the two objects comprising the range do not necessarily have to be charted objects, and the

(*Continued on page* 120)

Advertising Index will be found on page 142

A Holiday in France

(*Continued from page* 112)

too boisterous for the taking of chances, I rolled in the jib.

But that was poor business. Without the drawing power of the jib Adastra came almost to a standstill and we saw that with the change of tide we should be set back toward Barfleur. Going below, I told Barkham what had been done and asked him where he had stowed the No. 2 jib. He suggested the alternative of reefing the sail that was already bent on. Being unfamiliar with the possibilities of roller reefing jibs, that had not occurred to me; but when it was unrolled half way we regained our driving power and the weather helm.

We were then ready for anything, and at midnight Barkham was called and P. L. and I went below. She stood another two-hour watch from two o'clock, but I slept until four and so know nothing of the roughest run of Adastra's cruise. From twelve to one she logged seven knots under reefed jib and double-reefed main, and in the following hour duplicated the distance. Once or twice, said Barkham, it blew so hard that he wondered whether we oughtn't to shorten sail still more; but at the decisive moment it slacked off and rain took the place of wind. At two it was still so stormy that Barkham, unwilling to let P. L. stand a watch alone, remained on deck with her. It was not until daylight, when I again went on, that the weather moderated.

Thereafter for four hours we logged five and a half knots under the same reduced sail, and the watch was made interesting by the strengthening light and the thickening traffic as we drew near Le Havre.

At eight we sighted Trouville along our bowsprit and identified it by its jetties and casino. But we had arrived ahead of our appointed time, the tide being only at half flood, and there was nothing to do but heave to and wait for high water. By eight-thirty we were near enough the shore to see the long bank of sand that runs across the mouth of the harbor, and as we back the jib and lay to we drank a round of grog and wondered.

Wondered how it would feel to be caught out there in an onshore gale, seeing the frivolous life of the pleasure-seekers on the beach, the sheltered basin beyond the jetties, and the seas crashing on the impassable bar. Ofttimes these fishermen around us, who, like us, were hove to for high water, must have undergone that experience. And no doubt, there were many who had gone down to the sea before them and had perished because the hurricane came up before the tide.

While we waited, jogging up and down outside the bar, the rain came down in torrents and fog threatened to hide the entrance. But luck was with us, and at 11:20, seeing one fisherman after another sheet his jib to leeward and stand purposefully toward the jetties, we got the motor going and followed in.

With twenty feet of water in the channel where four hours before there had been little more than enough to float a rowboat, we passed easily up the entrance and took moorings in the basin. It had been a good run, and we relished the scrambled eggs and the sleep that concluded it.

Methods of Compass Correction

(*Continued on page* 118)

method may be varied according to circumstances. During the day a flag may be anchored and the vessel swung with that in range with a distant light or headland; at night a lantern on a dinghy at anchor may be used in range with a lighthouse.

The plotting of the resulting deviations may be done on the Napier Diagram in the same manner described previously, except that the observations have been made in this case on given *compass* courses instead of on given correct *magnetic* courses, and therefore the following procedure should be followed in the plotting: Measure off on the vertical scale the number of degrees corresponding to the deviation and lay it down as in the other case—to the right if easterly and to the left if westerly; but in this case on the *dotted* line passing through the point representing the vessel's head, instead of on the *plain* line as in the first method. After plotting the curve the method of use is identical to the other case.

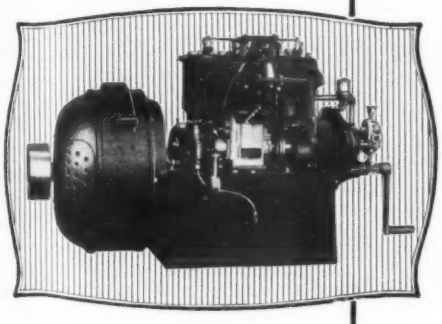
The Life of a Table of Deviations

The boatman should not, however, get the impression that a deviation table prepared for his boat will be good during the life of that vessel; for any considerable rearrangement of metal objects in the vessel, nor for all parts of the world. The magnetic forces in a vessel undergo changes when the vessel is moored in one direction, or hauled out, for a considerable period; and, further, the character of the deviations undergoes modifications as a vessel makes a considerable change in latitude.

Advertising Index will be found on page 142

—and a new line of real, sea-goin' Electric Plants!

The seasoned skipper's eye for what's ship-shape will be quick to see the compact neatness of these new Universal Electric Plants. Below is the new 4 K.W. size, typical in design of the entire Universal 1925 line.



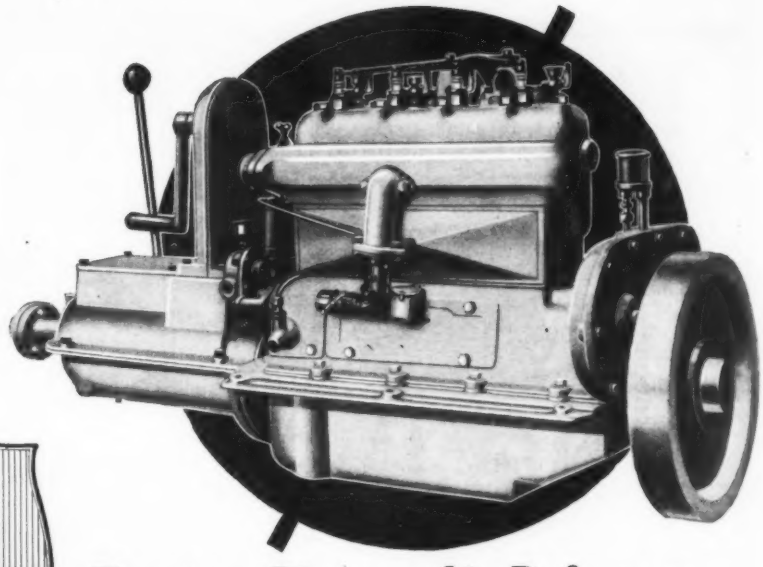
Excess weight has been eliminated, without the slightest sacrifice of necessary strength. All the dependability that has made Universal the preferred plant for the finest watercraft, has been retained in these superb new models. They've been re-designed for added compactness, smoother operation, better performance and greater convenience in routine attentions.

Generous excess of engine power means the motor will never labor, as it will not be overloaded. Smooth, four-cylinder power and marked freedom from vibration assures even, flickerless current. Close-tolerance manufacturing standards and the inclusion of condensite-celeron in the timing-gear train makes exceptionally quiet running plants.

There's a size and type Universal for every Light Plant need, afloat and ashore. Let us help you select the size and type suitable and most economical for your need.

Write for details, mentioning your lighting requirements.

Universal Electric Plants are furnished in 32, 60 and 110 volts, for use with or without batteries.



Forgive, Please, this Reference to the Motor Boat Show

IF you've "grown up" with the marine motor business, like we have . . . if you'd pioneered and preached four-cylinder smoothness in a 9-12 H.P. marine motor and then lived to see your product vindicate your judgment in no less than 37 different countries . . . if you'd heard many, many warm endorsements of your efforts expressed at motor boat shows since 1905—couldn't you be pardoned for not keeping the following observation a secret?:

The interest created by Universal's 1925 announcement of 25% more power on 10% less fuel—without a change in either bore or stroke—positively eclipses in effect all previous Universal achievements combined. The appeal of a genuine marine engine, with pep and flexibility that thrills like the motor in a fine car, is increasingly irresistible. This is a Universal year!

Right now—when you're dreaming of open waters—let us send you our catalog. Measure the extra sport and fun you'd have with Universal. We leave it to you if anything less is worth while.

UNIVERSAL MOTOR CO.

40 Ceape St. Oshkosh, Wis.

(Not connected with any other firm using the name "Universal")

Universal

Flexifour

15 H.P. MARINE MOTOR

The Making of Pirates Bold

(*Continued from page* 16)

change in the appearance of the boat had been made. Decks were scrubbed down and the entire hull below the water-line was scraped and painted, while the sea valves were inspected and stuffing boxes repaired. The boat was then towed up the Hudson River, through the New York State Barge Canal to Buffalo, and on to Detroit where it was tied up.

Then the balance of the Troop pitched in to finish the work of making the ship look presentable. The upper works of the boat were painted, deck work was finished, and the engine room was placed in proper condition. Due to limited funds as a result of the trip, only a short summer cruise was made last year.

During the trip each boy was assigned to certain duties which were to be performed daily and until he became proficient in his particular department. All brass was kept shining brightly and everything was kept strictly ship shape.

The sub-chaser was named By Gar and it is a very sea worthy craft, being equipped with six water-tight bulkheads and having a gross tonnage of 89. Thirty boys can be bunked at one time while there is a complete galley and necessary store rooms.

Members of Sea Scout Ship 31 will in time be able to handle the sub-chaser entirely by themselves and sufficiently competent to navigate the boat on cruises. The boys are planning to aid during the regatta periods on the Detroit River, and expect to render valuable assistance both ashore and on the water.

Much interest has been manifested in the Sea Scout movement in Detroit and it is expected there will be several more ships formed in various parts of the city within a short time. Recently Gar Wood received the commission as Commodore of the Sea Scouts of Detroit.

Three new engines have been obtained by the Detroit ship for installation in the sub-chaser and this work will be done during the spring months in preparation for an active season. The boat is now tied up for the winter and the boys are being taught knot-making, signalling and other pertinent facts which they will need during their cruise next summer to Lake Superior and Georgian Bay. The boys are awaiting anxiously the time when they will be able to board By Gar and prepare the boat for active service.

Thomas J. Keane of Chicago, acting national director of the Sea Scouts of America, recently attended a meeting of Detroit executives and during his stay emphasized the importance of the movement to the entire country. He urged the preparing of the nation's youth for the future and to be ready for an emergency which might arise.

"The Sea Scouts of America are of vital interest and importance to the entire United States," Acting Director Keane said. "I am strongly in favor and sympathy with national defense in naval affairs, and if such an emergency should arise I feel our boys will be found 100 per cent ready and prepared.

"These boys are being taught all phases of seamanship and when they have become first class Sea Scouts, they will be fully able and competent to man a ship. This Sea Scout movement is building character among the boys and making leaders of them.

"The interior of our country does not fully realize the true value of her navy for the people of that section are not near any great amount of water to speak of. We must educate them and through this movement, the voters of tomorrow—our Sea Scouts of to-day—will know full well what an adequate navy means."

Happy Youngsters Win Motors

The competition conducted by the Johnson Motor Company, during the Motor Boat Show in January, in which the competitors placed their names on cards and deposited them in a large box, was terminated on the last day of the Show. The box containing several thousand names was thoroughly shaken up, and the cards well stirred about. The Secretary of the National Association of Boat and Engine Manufacturers, Ira Hand, had been selected to draw the winning cards from the box, but due to the delay, was unable to be present at the proper time. One of the Editors of MoToR BoatinG happening along at this moment was impressed into service and requested to draw out two cards. The first of these was to win a type BM twin cylinder salt water equipped Johnson outboard engine, and the successful winner proved to be H. C. Pitcher, of 434 Park Hill Ave., Yonkers, N. Y. The second card drawn was to reward its owner with a single cylinder salt water equipped Johnson engine, and this proved to be Miss Muriel G. Underwood, 37 Arleigh Road, Great Neck, Long Island, N. Y. No doubt by this time both of these successful competitors in this novel contest have received their engines, and are awaiting good weather so that they can give them a tryout.

Advertising Index will be found on page 142

New Elto INVENTION

by Ole Evinrude

The Propello Pump

Ends All Pump Troubles

THOUSANDS of Outboard Motor users now thank Ole Evinrude for the Propello Pump. Announced for the first time last spring, its success was instantaneous. Especially, men who have owned Outboard Motors before have been most enthusiastic in their praises.

Think of it! There is not a single moving pump part—and yet a flood of water flows constantly through the new Elto cooling system. Ole Evinrude, in this invention, has made use of three simple, unfailing principles. The Propello Pump simply

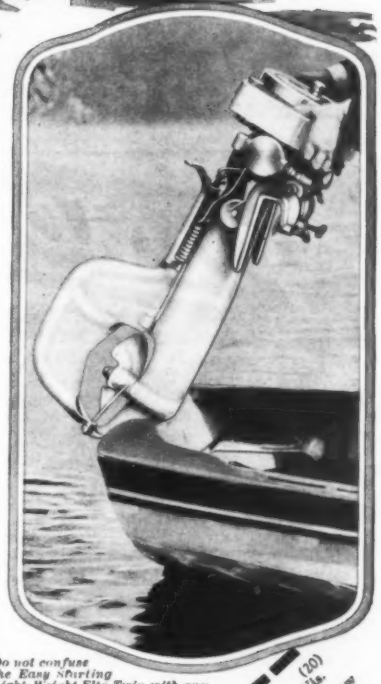
Scoops—Siphons—Forces Water

It never fails. The rudder openings scoop up the water as the Motor runs, straining it to keep out clogging materials. The whirling Propeller Blades push and force the water into circulation. Once started, the water siphons continuously. No more sticking valves. No more clogged pipes. No more overheated engines. No more expensive repairs. As long as your engine is running, you *know* the Propello Pump is working.

Works Perfectly at All Speeds—and in All Waters

Slow down to fish-getting trolling speed, or open up the throttle wide for a race; go anywhere in muddy or sandy water—fresh or salt—your Elto with its Propello Pump always cools perfectly. This is just one of the many exclusive features that is making the Elto the preferred of all Outboard Motors. Other Elto advantages are, of course, 50% more power, much more speed, least weight per horse power, instant starting every time, Atwater-Kent Ignition, safe rudder steering, larger bearings, sturdier working parts, longer life.

Our New Free Catalog Explains All—Write for a Copy Today



Do not confuse the Easy Starting Light-Weight Elto Twin with any other Outboard Motor, as for 11 years, Ole Evinrude, founder of the industry, has had no connection with any other Outboard Motor Co. The Elto is built in his own factory under his personal direction.

ELTO OUTBOARD MOTOR CO.

Dept. F, Manufacturers' Home Bldg. : Milwaukee, Wisconsin

OLE EVINRUDE, President

ELTO OUTBOARD MOTOR CO., (20)
Dept. F, Manufacturers' Home Bldg., Milwaukee, Wis.

Gentlemen—Send me complete catalog describing the new Elto Outboard Motor.

Name .....

Address .....

Found Only on Elto Fastest Light Twin 3 H.P.

"The Motor that Starts with a Touch"

Cruising to Florida With Huck

(*Continued from page 31*)

her umbrella in my eye and my pipe it gets full of water and then the game begins. The players they gets so covered with mud that I cheers for the wrong side constant and I never knows how it comes out until I reads in the papers the next day that my team it gets beat which aint any surprise to nobody but it was the wettest day I ever knows, in fact they was some thirty thousand empty bottles lying around afterwards.

My navy waterproof suit it was waterproof alright. It got full of water and not a drop leaked out. My fur coat it soaked up a hundred pounds, I fairly staggers back to the boat, I puts it in the engine room, it gets heat treated like a crankshaft, most of the fur it drops off and the rest it sets up like a piece of sheet iron. At this point my guests they quits cold and nothing much exciting happens on the way to New York except that we takes solid water down the galley stack and fills the stove full.

You thinks you is very cute the way you gets out of taking the trip down to Norfolk with me and how you is so pressed with business you cannot go and all that bunk. I doesn't doubt but what if the weather it was not so cold that you would have crowded aboard whether you was asked or not but anyways, I catches a sucker in the form of Cur de Lyon. When we turns in that night at Trenton he gets histerics laughing because I has ten blankets on my bunk and I jumps in with a hot water bag full of steam. The next morning I tries to get him up early. All he does is to make a horrible groan and says to leave him alone. I asks him what is the matter and he says as how he is so cold that he doesn't sleep all night and that he doesn't get up for a million dollars. This shows you Chap what a awful condition he was in because you knows that Cur de Lyon he would burn a church for four bits. Well I fixes him. I shuts all the windows and I starts one of them ODORLESS keresene stoves. By the time it is eleven o'clock he comes on deck. Oh does you get up? says I. Yes, says he, I gets up or I suffocates, one or the other. Where is the Raritan Canal? says he. Ten miles astern, I replies. Is zatso says Cur, the only reason I comes on this trip it is to see the Raritan Canal.

Eventually we arrives at Baltimore and we goes to the Army Navy football game. I am much obliged for the ticket you gets me for that game. It was a rotten one. I was three eighths of a nautical mile behind the goal posts and right behind a horizontal aisle. They was 81,000 people at this game and 70,000 of them they walks along this aisle. They all obstructs my view and all but two of them they walks on my feet. They didn't all get there until the game it was nearly over and by that time they starts leaving. That night I goes to a meeting of the Power Squadron at the Maryland Yacht Club and I makes a long speech telling them what a swell guy you was and how if it wasn't for you that they would be no MoToR BoatinG and I gets so eloquent that I almost kids myself into believing What I says.

At this point Cur de Lyon he gets a sudden attack of business engagements due to the temperature down in our stateroom being sixteen above and quits and I is left with nothing but my faithful crew and hot water bag. The rest of the trip it is a blur. I regrets that I cannot tell you all about it but we gets in every place after dark and we pulls out before daylight and I has very little idea of where I have been. I does remember that just before we gets to Morehead City that we runs full speed on a sandbar and that the steward he falls into the icechest with a chicken in his arms but the two of us on deck we reverses so quick that we backs off on our own stern wave as it runs under us.

Then I shows my usual lack of brains and I writes ahead to about a dozen friends in Jacksonville that I pulls into the dock of the Florida Yacht Club a little after five o'clock on the ninth of December which it was only six days away as I figures we runs outside the rest of the ways but the day we plans to leave Charleston they has a fog what they must have imported from the Bay of Fundy. We starts off from the dock on a compass course and we misses a buoy only a mile away. Then we runs aground, backs off, anchors and talks it over. Then we takes to the Inland route which it is about a thousand miles longer and nearly wears out the rudder steering around the bends. We then only has fifty-four hours left to cover 304.3 nautical miles in order that we gets to Jacksonville on time and doesn't disappoint the large number of people what is waiting for me with a brass band. We runs that night until it gets so foggy that you doesn't see either bank of a creek what it was only a coupla hundred feet wide. The next night we is running dizzy and abandoned until half past eleven when we stops short on a bank what I think it was made of glue because we sticks for keeps.

(*Continued on page 126*)

Advertising Index will be found on page 142

TANKS

ANY SIZE ANY SHAPE

BOAT TANKS
Gasoline Tanks
Fuel Oil Tanks
Water Tanks
Air Pressure Tanks
Spray Tanks

Special stern tank to fit around rudder post.

SPECIAL WORK
Galvanized Rudders
Ventilating Stacks
Oily Waste Cans
Marking Buoys
Exhaust Manifolds

THE resources of the L. O. Koven & Brothers, Inc., plant, covering 10 acres of floor space, are devoted to building the most reliable and durable tanks at the lowest cost. This organization maintains an extensive engineering department headed by men well versed in marine needs and who are adept in designing tanks of special shapes to fit snugly in the bow or stern around the rudder post or under the floor, giving maximum capacity in minimum space. This department will gladly assist you in your tank problems and show how you can increase your tank capacity without using any more space than at the present.

A large stock of tanks in standard sizes and shapes are carried on hand for quick shipment. Special designs executed in galvanized iron or steel, monel metal or any sheet metal. Let us quote on your requirements.

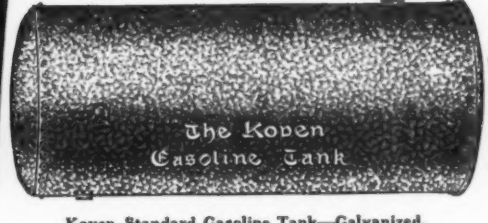
Special marine catalog sent upon request.

Special design bow tank

L. O. KOVEN & BRO., Inc.

Largest tank manufacturers catering to motor boat trade.

154 Ogden Ave., Jersey City, N. J.



Koven Standard Gasoline Tank—Galvanized. All sizes carried in stock up to 250 gals.

Special bow tank made to specifications

Cruising to Florida with Huck

(*Continued from page* 124)

We turns in exhausted. I wakes up about two o'clock falling out of my berth and lands on my ear on the other side of the boat. Then all the books they falls off'n the shelf onto Eddie's stomach. Then a kerosene can it hops out of place and rolls across the engineroom floor. Then the door of the icechest it unlatches and two dozen eggs, a bottle of milk, fifty seven other varieties of food and a hundred pounds of ice they leaps out and turns into a Alaska omellette on the galley floor, in fact Chap I never knows a busier night. I tries to live up to the reputation of being a stubborn jackass so we starts off again just as soon as we floats off at about six a. m. on the 9th, runs out to sea at the first hole in the coast and by afternoon we is bucking the tide up the St. Johns River. Then I not only scrapes off a beard what it would make Valentino blush but I even goes so far as to take a bath and my crew they scrubs decks and they polishes and they puts on clean uniforms and I breaks out my best yachting suit and even though we is all exhausted we puts on a company smile and gets ready to be received royal-like. Then at five thirty we approaches the Florida Yacht Club. Then I sees that they is nothing but two white children three years of age, two nurses of African descent and one mongrel dog on the piazza and they pays no attention to us. Then we runs aground hard fifty feet off'n the dock and all I has to say to you Chap is DEATH WHERE IS YOUR STING.

Glimpses of the Show

(*Continued from page* 13)

speed engines and faster boats were built for the Government in the hope that the smugglers would be wiped off the face of the sea. And the end is not yet. The future offers a vista of one Government rum chaser for every private rum runner, all numbered and paired off like players in a football game.

All joking aside, I was very strongly impressed with the importance of rum chasing as I roamed about the Grand Central Palace, from main floor to balcony.

On the one hand I saw a fine, big engine specifically designed to overhaul rum runners; on the other hand, plans and specifications of boats built to accommodate these engines. A big tank manufacturer called attention to tanks built specifically for installation in these boats; a wheel maker showed wheels for driving them; a magneto maker advertised magnetoes for sparking the engines; and so on.

And then, not far off I saw the exhibit of a glass manufacturer, with cocktail, champagne, cordial, highball, port, and sherry glasses prominently displayed. These glasses, if you want the truth of it, are intended for palatial motor yachts that cruise to Cuba and Bermuda where it is legal and proper to quaff the cup that inebriates. They are not used by local motor boatmen.

In another part of the show was a fine 600 h.p. engine that is even more powerful than that used in the Coast Guard boats. This engine is designed for racing runabouts; but if an occasional installation is made in a sea-going hull built to accommodate 150 cases of salt mackerel (the 600-case boats, I understand, have become obsolete because of the time it takes to fill them) then it will only be a matter of time before the Government orders a fleet of super-speed boats also equipped with 600 h.p. engines.

I find it almost impossible to treat this interesting question with the respect it deserves. Superficially it seems to me a most amusing situation that law-maker should vie with law-breakers in the acquisition of high-speed boats, both parties ordering from the same industry. But fundamentally, it is the best thing that has ever happened to the marine motor.

For years the design of marine engines lagged behind the design of automobile engines. The reason is that there was not enough money in the aquatic field to finance advanced experimentation. Cars were initially cheaper than boats and hence commanded a wider market at the outset. For one marine engine a hundred automobile motors were built, and it stands to reason that the second boat engine could not be mechanically as perfect as the second hundredth automobile engine.

The war and the building of submarine chasers helped the marine field, just as it helped the truck and tractor makers. But it stopped too soon to evolve the perfect high-speed unit. Since the war an increased interest in high-speed racing craft, added to the advances made in aviation motors and coupled with the A.P.B.A.'s restrictions as to cylinder capacity and hull design, has accomplished marvels in the production of better, more durable power plants; but even this advance has been impeded by the limitations of private capital.

(*Continued on page* 132)

Advertising Index will be found on page 142

25 to 30 Miles per Hour

Mr. F. Merrill Brecht is the the owner of this 1925 model standardized 25 foot runabout of the Ventnor Boat Works, Atlantic City, N. J., powered with a Kermath 70 H.P. 4 cylinder engine.

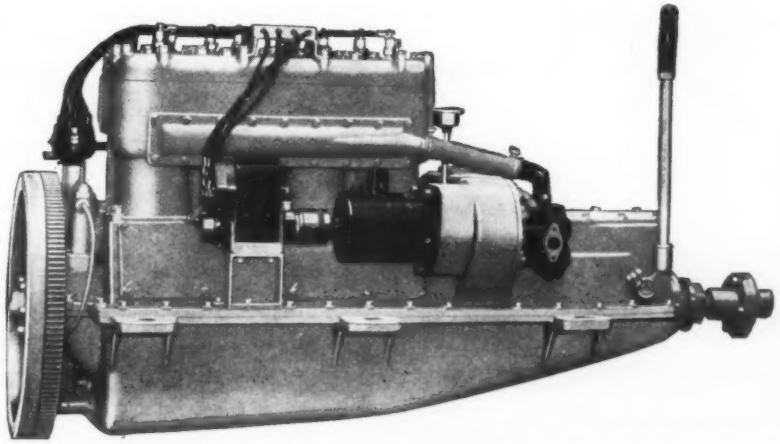
FOR the man who wants the convenience of a good utility runabout with a speed which approaches that of a speedster it will be hard for him, if not impossible to find a boat which will fit his requirements more nicely than the Ventnor Boat Work's 1925 model standardized 25 ft. runabout. This craft with its Kermath 70 power plant is one you can well afford to be proud of if not glory in its ownership. Ample seating capacity for 6 to 8 passengers is provided in the spacious and comfortable cockpit.

For further information address

KERMATH MANUFACTURING CO.
5879 Commonwealth Ave. Detroit Michigan.

KERMATH 70

Four cylinders, 330 cu. in. displacement. A strictly runabout motor. Duraluminum connecting rods. Lynite aluminum split skirt pistons. These features, together with higher compression, larger carburetor, bigger intake valves and other advancements are found only in the Kermath 70.



Advertising Index will be found on page 148

Speed and More Speed by gosh!

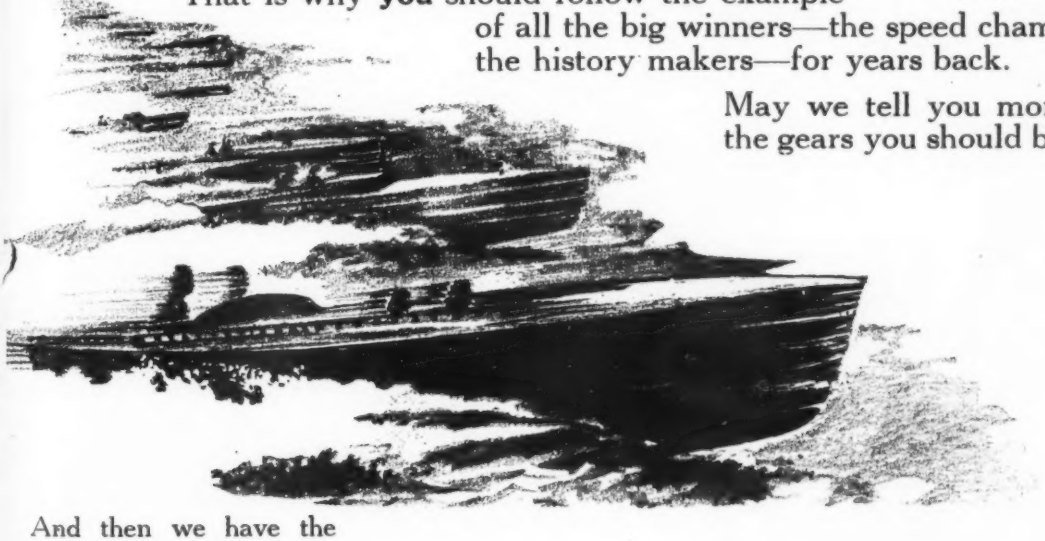
is what the Motor Boat Nut is everlastingly after.

And I'll say it is a great thrill to be aboard when she is hitting up a terrific pace.

But Man! Suppose something goes wrong with the gear—suppose she slips—smashes! Think of the danger and the chagrin!

That is why **you** should follow the example of all the big winners—the speed champions—the history makers—for years back.

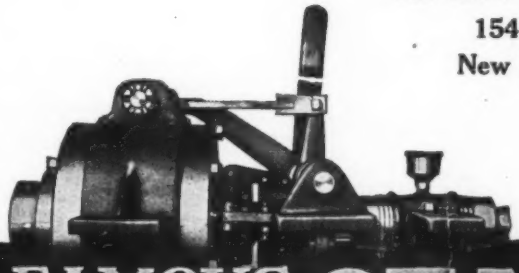
May we tell you more about the gears you should be using.



And then we have the service to back up the gear—a place in your vicinity where you can secure quick advice or delivery of gear or parts.

Which one is nearest to you?

The Snow & Petrelli Mfg. Co.
154 Brewery St.
New Haven, Conn.



USE JOES FAMOUS REVERSE GEARS

REVERSE 80%-88% of MOTOR SPEED

p. 130

Feb 1925

Yard and Shop

(Continued from page 94)

Improved Boat Plumbing

YACHTSMEN who have enjoyed the pleasures of Motor Boat Cruising will experience a sense of relief in learning that after many years one of its few disagreeable features may now be eliminated by using an electric flushing toilet instead of the old type of lever pumping mechanism.

This electric flusher has been recently invented and developed by a prominent boat building organization. The demand for such a device has been persistent and is of such importance that designers were set to work, some two years ago, in an endeavor to perfect something that would satisfactorily fill this much needed requirement of boat owners.

After a long series of tests, modifications and changes from the original model, followed by a thorough practical test, the device has been proven successful and a marketable product. It operates on a six volt storage battery, a size which forms part of the equipment, found on every modern cruiser. It dispenses with the pump handle, with its valve and springs, always a source of constant annoyance in getting out of order.

This flusher is rigidly held in a bronze casting in which a six volt electric motor is mounted. The shaft of this is extended by a flexible coupling, and continuing through forms a shaft for the water pump and rotor. The water pump and rotor while each are separate units, are mounted integrally and form a combination in which all valves and springs have been eliminated.

The electric operating push button may be placed either in the floor or mounted on the wall along side the fixture or elsewhere as dictated by the available space or as most convenient. By making the electric connection, sea water is pumped through the fixture and discharges again into the sea. In appearance the installation is much the same as the modern domestic fixture. The motor and pump does not necessarily have to be located near the fixture. In very small boats, it may be placed in any convenient location, even at a considerable distance from the fixture.

It is adaptable for all boats supplied with six volt current, and for use on boats of all sizes up to 80 or 100 feet in length. The use of this device for over a year in practical service on board yachts, warrants the builders in placing them on the market with the full knowledge that they will fill a long felt need, and prove entirely satisfactory.

Sutter Brothers Enlarge Business

The decision of the International Manufacturing Company of Detroit to withdraw from the manufacture of marine engines, has resulted in the purchase of the entire stock of parts and engines, and also the goodwill of the company by Sutter Brothers, New York dealers and manufacturers in engines and marine accessories. This means that this popular little engine will be available to its friends from the New York warehouses and plant of Sutter Brothers.

A New Diesel Yacht

The first of the 1925 fleet of motor yachts will shortly be ready for Commander J. K. L. Ross of Montreal. She is being built by the Ditchburn Boat Works, from designs by Tams & King. This boat is to be essentially a deep sea vessel, which, when one remembers the previous yachts of the Commander, is only natural. Yachtsmen will be interested to learn that Commander Ross is again actively in the sport.

Among the yachts Commander Ross has owned at different times are Albscore, designed for him by Messrs. Tams & King some years ago. Tarantula, which that firm sold to him, formerly belonging to W. K. Vanderbilt, the second Winchester, now Grilse, owned by Mr. Guggenheim, and others too numerous to mention.

The new boat will be powered with two 150 h.p. reversible Winton engines, which will drive her at 12 knots. She will have a large and well balanced cruising radius, with ample water, oil, and stores. She will be heavily constructed throughout, everything about her being most substantial.

A New Paint

A paint which will cover any surface completely with one coat, will save the necessity of applying a second one. Such a paint is Monolith, produced by The Monolith Company of America at Red Bank, N. J. This paint resists the action of the elements, does not crack or peel and is ready for repainting when desired without the necessity of removing the old surface. It is composed of pure linseed oil and turpentine, compounded with a pigment of extreme quality of endurance. It is made in all tints and shades, in oil, flat, velour, enamel, and heavy paste.

A Chance for Foreign Representation

We learn that C. H. E. Rush, who is established in England as an insurance, yachting, and marine outfitter, is particularly anxious to secure agencies for anything relating to motor marine, either for pleasure or commerce. This firm has an excellent position and standing, so that American manufacturers of marine products, who might wish to secure representation in the English markets, will do well to get in touch with Mr. Rush promptly. Address Sir William M. Letts, Gorton, Manchester, England.

A New Product

In order to protect battery terminals and electric wiring against corrosion, the Kant-Rust Products Corporation of Rahway, N. J., has brought out a product called Kant-Krode, which is in a paste form, and designed to prevent and retard corrosion and leakage of current at terminals. This product is easy to apply, and is efficient on all forms of storage batteries.

A New Gear Catalog

We have just received a copy of the new edition of the marine reverse gear catalog, published by Gies Gear Company of Detroit. This little booklet is just full of information concerning the use of reverse gears, and copies of it may be had for the asking. It gives in addition to a description of the size and capacity of the several gears built by the company, some instructions of installation and operation, which should prove particularly useful for those who have any occasion to use marine reverse gears.

Paint Sales Conference

New Jersey Paint Works, Harry Louderbough, Inc., of Jersey City, N. J., held its sales conference on Monday, January 5, at the Carteret Club, Jersey City, and discussed plans for 1925. Representatives from all territories were called in, being present, as well as export men covering Central America and other tropical countries; and the new products as well as the general plans were explained by the Chairman, A. G. Fairweather, Sales Manager, and the President Harry Louderbough, and Vice President Minor Smith, talked on these subjects. The business of 1924 was a very satisfactory and with the closing of the books showed a very substantial increase in business over the previous year; and with the addition of several new men to the Sales force, look forward to the best year of its career for 1925, and from the plans laid out, together with the enthusiasm displayed by the salesmen, it is the hope of the executives that the goal they strive for will be accomplished because of the younger men who are now associated with this concern.

Naval Architects Move

Word has been received that the firm Tams & King, naval architects and yacht brokers, will change its address from 52 Pine Street, where they have been located for twenty-five years, to the new Postum Building at 250 Park Avenue, New York, N. Y. At this moment the building is not yet quite complete, and it is the firm's intention to change its quarters about the first of May.

The Coast Guard Engines

As is well known by this time the engines built by the Sterling Engine Company of Buffalo, and used in the Coast Guard patrol boats, are now available for installation in private yachts and boats. Due to the large production of these machines, the price is very favorable, and less than would be necessary for an engine of similar quality produced for different requirements. Engines in excess of government requirements are being produced to give yachtsmen this advantage. It is offered in two different types, one with standard equipment, and the other with aluminum crankcases and of slightly more power. An attractive folder has been prepared describing and illustrating these machines in a very complete way, and the Sterling Engine Company of Buffalo. N. Y. will be pleased to send a copy to any reader of MoToR BoatinG, who will take the trouble to write for one.

New Kermath Engines in Liggett Cruisers

The new six cylinder Kermath engine which was exhibited for the first time at the New York Motor Boat Show, is being used as standard equipment in some new 40-foot double cabin cruisers, which are being built as stock models by the Liggett Boat Company of Wyandotte, Mich. These boats were designed by Hacker & Fermann, and the first two of these have already been spoken for, and will be used by Commodore Alex. I. McLeod of Algonac, and J. B. Farr. Additional boats are under construction and will be available for use this summer.

(Continued on page 134)

More Motor for Your Money

MORE real engine—more zip and life—more speed — more flexibility — more quietness and smoothness — more of everything that the experienced buyer wants in an outboard motor is built into the Evinrude Sport Twin. It caps fifteen years of outboard motor development.

"Other Motors are Not Evinrudes"

Only the genuine Evinrude has the exclusive features described in this advertisement. They make the Sport Twin the handiest and most complete motor ever clamped to a boat. They are coupled with lightness, beauty, and the durability that has made the Evinrude famous all over the world.

Examine a Sport Twin at your dealer's today.
Mail the coupon for illustrated Catalog.

EVINRUDE MOTOR COMPANY
204 Evinrude Building, Milwaukee, Wisconsin
Distributors:
115 East 23rd St., New York, N. Y. — 119 Broadway, Oakland, Calif.
259 Atlantic Ave., Boston, Mass. — 211 Morrison St., Portland, Ore.

EVINRUDE
(THE ORIGINAL)

EVINRUDE MOTOR CO.
104 Evinrude Bldg., Milwaukee
Send me details of your 1924 Dealer Proposition, without obligation.
Name _____
Address _____
City _____

Evinrude Features

New Flywheel Magneto

Super-powered—assures instant starting and amazing performance. Moisture-proof. Eliminates heavy, uncertain batteries.

New Auto-Type Carburetor

Float feed design—an exclusive Evinrude-Zenith model. Has adjustable needle valve. Throttles and accelerates quickly and evenly. Saves "gas".

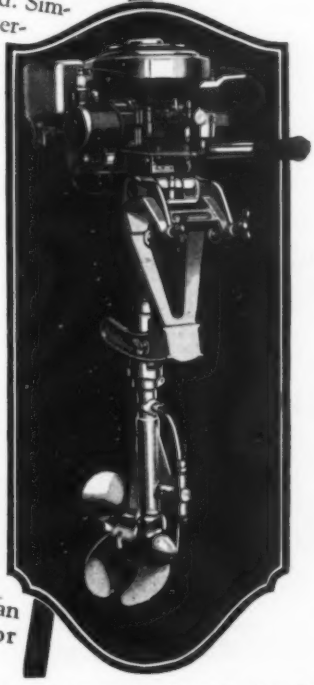
New Safety Reverse

—automatic—at a lift of the tiller. Reverses drive instantly, without swinging motor around. Simple, certain and absolutely safe. No other like it.

New Safety Tilt-Up

Motor cannot be injured by snags, shallows, or beaching (you can pull the boat right up on the dock). Can be locked for starting.

Sport Twin also made with bronze underwater parts, preferred by some for salt water use.



Glimpses of the Show

(*Continued from page* 126)

Now, however, that the Treasury Department is going after the boot-leggers in earnest, the perfection of the marine engine is assured. In effect, our industry has been subsidized by an opulent Government. Thousands of dollars are available for new construction where hundreds were before. Every lesson learned in the development of high-speed, high-power engines is applicable to high-speed, low-power machines. Uncle Sam dips his hand in his deep pocket and pays for the compacting of power, the elimination of vibration, the longevity of bearing metal, the perfection of reversing apparatus, and so on. The private, law-abiding owner, buying his 15 to 20 h.p. engine, finds before long that because of Uncle Sam's generosity he pays less and receives greater value than ever before.

The various phases of this interesting topic might be further propounded, but I shall leave the subject with the suggestion that the Honorable Volstead be made an honorary member of the National Association of Engine & Boat Manufacturers. He is the best friend the motor boatman ever had.

The other forcible impression which I carried home from the Twentieth Show was the increasing popularity and adaptability of the outboard motor. Portable power packages seemed to be displayed in every corner of the Palace, crowds surged around the exhibits, and salesmen wore out pencil after pencil booking orders. Some of us may have to think twice before ordering a motor yacht that costs as much as a country house, but most of us can find the change needed to buy an outboard motor. And, of course, the universality of this type of power plant is responsible for its present high order of merit. The more the portable is bought, the better it becomes, and the less it costs to buy it.

But the greatest thing about the outboard motor is its appeal to the small boy, with its awakening of his interest in motor boating. I have heard skippers of racing yachts say that it is becoming increasingly difficult to pick up crews for match races. In other days the docks and floats used to swarm with boys in their teens who would sell their souls for a chance to act as ballast in a racing sloop. But nowadays the boys of this age are on the highways or at the country clubs, parking or sparking. The hope for the future of yachting, therefore, is to catch the lads young and give them a primary interest in the noble sport. "A yachtsman before seven, still a yachtsman in heaven" is a paraphrase that fits the case. An outboard motor, small, reliable, and speedy, will make an enthusiast of your boy.

If your taste runs to sail, the knockabouts, sneakboxes, and other small windjammers that were displayed at the Show will serve the same purpose with the youngster. Most of these boats were a delight to the eye, and there was one black-hulled redwing that shattered the tenth commandment to a thousand pieces. I coveted that enameled little beauty, wished I had nothing to do but sail it around the harbors of the Sound, vowed that when my son grows old enough to handle a tiller we shall go cahoots on one of them.

In the matter of auxiliaries, I was a little disappointed, as I had hoped to find a fleet of them. They are the acceptable compromise between the warring camps of power and sail. They add to the effect of the ensemble, collect the cruising nuts in one place, and turn the conversation to the relative merits of yachts and fishermen.

But if the auxiliaries were missing, the motor boat cruisers were there in full force. There are still a few boat-builders who seem to think that a motor boat is built primarily to look pretty on dry land, and at the Show you could see types that deserved to sink if they were accidentally placed in water. In the main, however, the cruisers are an advance over previous years, and show every evidence of seaworthiness above and below the waterline. As always, they attracted the most attention from the ladies, and the gangways were crowded from morning to night.

Baby Bootlegger, the 1924 winner of the Gold Cup, was prominently displayed, and on her deck was the famous trophy itself, with names inscribed on it that take you back to the dawn of racing endeavor. Chip II—what a furor she made! And yet there were half a dozen stock models on the Palace floor that could sail circles around her today. The world moves, and water flows ever faster under the keel of motor boats.

I walked about the building quite a bit hoping to overhear some oldtimer say, "Well, it's the same old Show." But I didn't hear it. I heard something better—"It strikes me as a fine all-around Show." That's what it was. In runabouts, cruisers, outboard motors, racing motors, Diesel motors, fishing motors, and accessories of all kinds, there was an appearance of progress. Aluminum and nickel plate, no less than highly polished woodwork, reflected the prosperity of the industry. It looks like a successful year.

Advertising Index will be found on page 142

PACKARD MARINE ENGINES

Supreme For Every Type of Boat

Packard prestige in the motor boat world is founded on a world-famous record—in motor boat races, in endurance runs, and in all-round motor boat service.

In every detail of performance, in reliability, stamina, in speed and power these great marine engines are maintaining the outstanding character of leadership that has for years been associated with the name Packard.

Mile for mile and year for year, a Packard Marine Engine of whatever type will give you better service, greater speed and less trouble and expense than any other engine of even approximate performance.

Full details regarding any Packard Marine Engine sent on request.

ASK THE MAN WHO OWNS ONE

Model 1M-268
Packard Six Type
Six Cylinders. Weight 625 lbs.
45 H. P. Price $1500

Model 1M-357
Packard Eight Type
Eight Cylinders. Weight 790 lbs.
60 H. P. Price $2000

Model 1M-618
Famous Gold Cup Type
Six Cylinders. Weight 900 lbs.
200 H. P. Price $5000

Model 1M-1237
Sweepstakes Type
Twelve Cylinders. Weight 1168 lbs.
400 H. P. Price $8000

Model 2M-1551
Shenandoah Type
Six Cylinders. Weight 1790 lbs.
275 H. P. Price $10,000

PACKARD MOTOR CAR CO.
DETROIT, MICHIGAN

Yard & Shop

(Continued from page 130)

Many Varieties of Pumps

With a record of more than 40 years as builders of bronze pumps for marine engines, the M. L. Oberdorfer Brass Co., of Syracuse, N. Y., has expanded its line for 1925 to include a number of newly developed pump outfits.

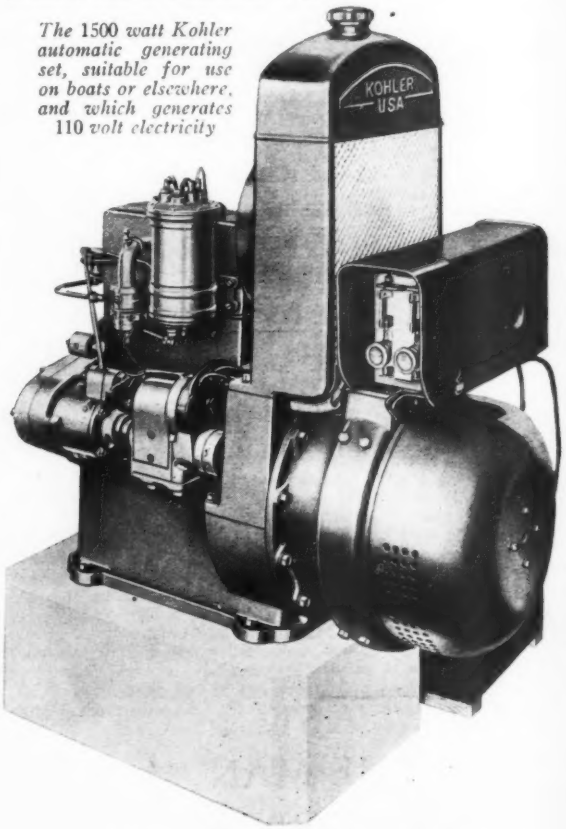
Perhaps the most interesting item in the new line, is a portable pump, mounted on a platform, with an electric motor or belt drive attachment, which has dozens of uses in or about boats. The entire outfit is light enough to be picked up and carried about, weighing less than 40 pounds, motor-and all.

It has a capacity sufficient for bilge pumping and may be used either from deck or dock, wherever there may be an electric light attachment for power. For deck scrubbing it may be carried from one position to another, drawing as much as 400 gallons of water per hour. It can be installed permanently as part of the plumbing system.

Oberdorfer pumps are used on many of the most famous marine engines for pumping oil or water. Thousands of the various sizes and types are sold each year for replacement purposes and for original installations on boats built by independent builders all over the world.

Oberdorfer pumps are made of bronze throughout, all castings made in the immense foundry, which produces bronze and aluminum castings and accessories in many other lines. Every pump is carefully machined and assembled, then run in oil for a time sufficient to work in all edges, shafts and gears. After re-assembly, every pump must stand a pressure at work of 80 pounds, and it is not uncommon to show as high as 150 pounds pressure, without disturbance of parts.

The 1500 watt Kohler automatic generating set, suitable for use on boats or elsewhere, and which generates 110 volt electricity



City Electricity for Boats

The remarkable adaptability of electricity to all forms of service makes it particularly useful about a boat. The generating set, built by Kohler of Kohler, Wis., generates 110 volt current, and operates without the use of storage batteries. The only battery necessary is a small one for starting purposes which makes the set automatic. The turning on of a light anywhere in the system starts the machine and its full capacity is immediately available. The plants are made in several different sizes up to 1,000 watts capacity, and all are arranged on the full automatic plan.

Advertising Index will be found on page 142

2½ inches diameter

Two Examples of Ruggedness

BRENNAN
STANDARD MOTORS

All parts of the Brennan Model D-4 might be called oversize because of the extreme rugged construction — for instance, the crankshaft and the crank-pin bearings are each 2½" in diameter.

The Brennan is one of the oldest makes of marine engines on the market and for twenty-eight years it has been the quality motor at the lowest possible price considering values.

31' x 8' V-Bottom Cruiser owned by F. S. Clarke of Oakland, Calif. Powered with Brennan Model D-4 Motor. Speed 15 miles an hour.

The power range is a broad one — 17–100 h.p. The D-4 Model is a popular size and type as it gives equally good results in cruisers, or runabouts, with the minimum of fuel costs.

Most Popular Size
Most Complete Line

You will find features in the BRENNAN that are found only on motors selling at several times their cost.

Your comparison will confirm the fact that the BRENNAN represents the greatest value on the market.

"Write Brennan Before you Buy"

There are models that cover the power of requirements of every size and type of pleasure craft, fishing boats, and commercial service boats.

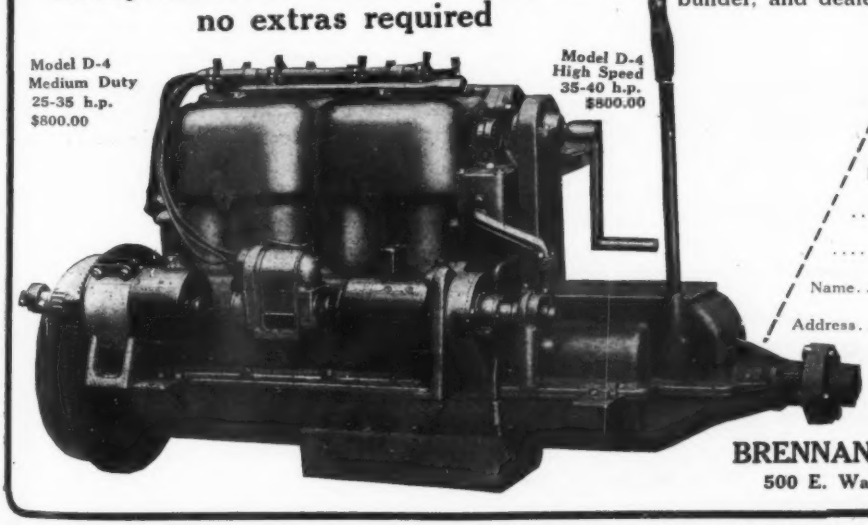
A *New* Sales Plan

that will interest every boat owner, builder, and dealer. Write for it today.

Every Motor is furnished complete— no extras required

Model D-4
Medium Duty
25-35 h.p.
$800.00

Model D-4
High Speed
35-40 h.p.
$800.00



COUPON

Send me your new sales plan.
My requirements are.....
.....
.....
Name.....
Address.....

BRENNAN MOTOR MFG. CO.
500 E. Water St., Syracuse, N. Y.

Advertising Index will be found on page 142


Accurate, quick-seating and long-lived, QUALITY Piston Rings are everywhere proving their claim to supremacy in the marine engine field.
More and more builders of marine motors are specifying QUALITY Piston Rings for original installation.
And more and more users are learning the advantages of employing QUALITY Piston Rings for replacement.
That is why we are shipping "Over two million a month."
The Piston Ring Company
Muskegon, Michigan
QUALITY
Piston Rings
"EAST TO LAST"

The *Starboard* Watch

Improvement in Boats and Engines Displayed at the Show an Outstanding Feature—Interesting Comments on Many Topics

By WILBUR H. YOUNG

WISE is the boat builder who realizes that during much of the time his customers will be on their boats they will be engaged in fishing. Fishing is an integral part of motor boating and even for the women folks, to whom it has never appealed before, it soon becomes an infinitely better way of passing lazy Summer hours than knitting or reading or working out cross-word puzzles. And for the dyed-in-the-wool outdoorsman the idea of owning a boat and not using it for fishing would be positively comic. Making provisions for the comfort and convenience of fishermen also has a weighty psychological value. You take a visitor at the Motor Boat Show who has never before owned a boat and you show him a craft fixed up with fish well, bait well, and awnings that can be rolled back to give him room to swing his rod, rod rack, and other things suggestive of fishing, and immediately you turn him into a motor boat fan. The thrill of fishing is as old as mankind and absolutely sure-fire in its appeal.

* * *

Mechanically we are not so far behind the automobile people as some folks think. We now have straight-eight motors for motor boats, and superchargers. Nothing could be more modern than these. However, the automobile fellows have a lot of things that we haven't and never will have—such things, for instance, as balloon tires and their problems, the necessity for air cleaners on their engines, front and rear bumpers, spare tires, four-wheel brakes, and a lot of other things that a writing genius could turn into quite an article on the advantages motor boating holds over motoring.

* * *

This year's Motor Boat Show has come and gone and of all that I have attended in the past years this one to my mind was the outstanding one from the development viewpoint. Not only were there more boats and engines displayed but the improvement in design and workmanship was most marked. Each year has shown to a greater or less extent these qualities but the exhibits this time showed that the designers and builders of both the boats and the engines have been most successful in applying in a thoroughly practical manner the lessons learned from the experiences of the past. There was exhibited a number of boats and engines built for the average pocketbook and sales of some magnitude reported. However, this angle of the Motor Boat Show has been written up in another column of this issue in a very entertaining manner and I advise you to read it.

* * *

I am certainly glad to note a lively tendency toward the abolishment of the knocking that has been so prevalent in the past. It has not been many years since visitors at the Show were informed by people they considered experts that every boat in the place was a bunch of junk. It seemed only necessary to ask any boat exhibitor, and engine man, too, for that matter, what he thought of the boat or engine in the next booth and his ears would be filled with a delicious volume of forceful words retailing the bad points, imaginary or otherwise, of the boat or engine in question. It is only pardonable that each of us thinks his own product superior to that of his neighbors, but when a Show visitor receives the assurance that everything in the Show is worthless, he is not likely to have much faith in the sport or the industry. We are all trying to boost motor boating and one way *not* to do it is to engage in the knocking which has become such a universal habit in the automobile business.

* * *

We are engaged in what seems destined to be the greatest year motor boating has ever experienced, commercially and from the sporting angles. Let us hope that by the end of a few years our concerted efforts will have placed this patient and hard-working industry on the map in such vivid colors that we shall look back at 1925 and say, "Just think how little business we did in that year and yet we thought it was wonderful."

* * *

There is a very healthy tendency on the part of some of the builders of large, luxurious yachts to view with more tolerance the people who are interested in smaller, cheaper craft. In fact, I consider this one of the best signs of progress among all our activities. Automobiling started as a rich man's sport but it was the little fellow who made it the commercial giant it is. Motor boating must go through the same experience before it will arrive at the point it will reach some happy day in the not too distant future.

* * *

I am going to ask every one of you to get behind the Gold Cup Committee and boost as hard as you know how to further the success of the races that will be held on Manhasset Bay next August. Each one of you can do something no matter how little, and concerted effort by all of us will make this a race meet that will stand out in history. Next month I will outline a few thoughts on this subject that will if followed enable every one of us to help even if we are busy and our time limited.

* * *

I have been advising the boat builders to adopt standardization. Now I am advising the buyer to do likewise. Do not try to inject your own individuality too much in the design of your boat. Whether you realize it or not your architect has more very definite and practical ideas crowded in his top piece than a whole flock of us laymen could ever absorb unless we, like the designer, made a business of it. And this also assumes that we have the ability. The buying public might as well make up its mind now as well as later that the only way satisfactory small boats can be built and sold for prices we can all afford is by these standardized methods that each year sees adopted more and more by the builders. Today one can go into a show room, select the boat that suits as to size and type and can go aboard the same boat and have demonstrated actually just how the boat will perform under service conditions in a similar manner adopted by the automobile manufacturer for demonstrating his product.

* * *

We are all more or less prone to travel in our own little ruts and sometimes to such an extent that we become very egotistical about our own product. This egotism can be knocked out most completely if we travel around a bit and see how the other fellow is progressing and then, if we are wise, we heave ourselves out of the groove to which we have become accustomer.

* * *

I have noticed in some of the magazines recently some designs for boats of a very sturdy nature which have been and are being built on the Pacific Coast. Each locality develops a type which in the experience of the boatman located there best meets the requirements. When the understanding designer combines all the good features as developed in these various localities the fortunate purchaser of such a boat will secure a product that will give him the utmost satisfaction.